APPENDIX G

Section 42

Outfall 012, February 16, 2009

Test America Analytical Laboratory Report

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project: Alpha Test Stand

Sampled: 02/16/09
Received: 02/16/09
Revised: 03/20/09 07:58

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.
This entire report was reviewed and approved for release.

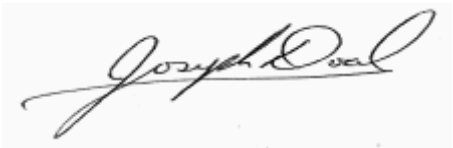
SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

ADDITIONAL INFORMATION: This is a Revised report to add a M-3 data qualifier to the Matrix Sike result.

LABORATORY ID	CLIENT ID	MATRIX
ISB1803-01	Outfall 012	Water
ISB1803-02	Trip Blanks	Water

Reviewed By:



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Sampled: 02/16/09
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EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1803-01 (Outfall 012 - Water)									
Reporting Units: mg/l									
DRO (C13 - C28)	EPA 8015B	9B19076	0.047	0.094	ND	0.943	02/19/09	02/20/09	
Surrogate: n-Octacosane (40-125%)					*69 %*				

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VOLATILE FUEL HYDROCARBONS (EPA 5030/8015)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1803-01 (Outfall 012 - Water) - cont.									
Reporting Units: mg/l									
GRO (C4 - C12)	EPA 8015B	9B21002	0.030	0.050	ND	1	02/21/09	02/21/09	
Surrogate: 4-BFB (FID) (65-140%)					*91 %*				

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PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1803-01 (Outfall 012 - Water) - cont.									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624	9B23014	0.40	0.50	ND	1	02/23/09	02/24/09	
1,2,3-Trichloropropane	EPA 624	9B23014	0.40	1.0	ND	1	02/23/09	02/24/09	
Di-isopropyl Ether (DIPE)	EPA 624	9B23014	0.25	0.50	ND	1	02/23/09	02/24/09	
Methyl-tert-butyl Ether (MTBE)	EPA 624	9B23014	0.32	0.50	ND	1	02/23/09	02/24/09	
tert-Butanol (TBA)	EPA 624	9B23014	6.5	10	ND	1	02/23/09	02/24/09	
Surrogate: 4-Bromofluorobenzene (80-120%)					*95 %*				
Surrogate: Dibromofluoromethane (80-120%)					*88 %*				
Surrogate: Toluene-d8 (80-120%)					*95 %*				
Sample ID: ISB1803-02 (Trip Blanks - Water)									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624	9B25033	0.40	0.50	ND	1	02/25/09	02/25/09	
1,2,3-Trichloropropane	EPA 624	9B25033	0.40	1.0	ND	1	02/25/09	02/25/09	
Di-isopropyl Ether (DIPE)	EPA 624	9B25033	0.25	0.50	ND	1	02/25/09	02/25/09	
Methyl-tert-butyl Ether (MTBE)	EPA 624	9B25033	0.32	0.50	ND	1	02/25/09	02/25/09	
tert-Butanol (TBA)	EPA 624	9B25033	6.5	10	**18**	1	02/25/09	02/25/09	A-01
Surrogate: 4-Bromofluorobenzene (80-120%)					*101 %*				
Surrogate: Dibromofluoromethane (80-120%)					*96 %*				
Surrogate: Toluene-d8 (80-120%)					*102 %*				

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1,4-DIOXANE BY DIRECT INJECTION GCMS - SINGLE ION MONITORING (SIM)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1803-01 (Outfall 012 - Water)									
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B-SIM	9B19013	1.0	2.0	ND	1	02/19/09	02/19/09	
Surrogate: Dibromofluoromethane (80-120%)					*100 %*				

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ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1803-01 (Outfall 012 - Water) - cont.									
Reporting Units: ug/l									
Naphthalene	EPA 625	9B17084	2.9	9.6	ND	0.962	02/17/09	02/21/09	
N-Nitrosodimethylamine	EPA 625	9B17084	2.4	19	ND	0.962	02/17/09	02/21/09	
Surrogate: 2,4,6-Tribromophenol (40-120%)					*84 %*				
Surrogate: 2-Fluorobiphenyl (50-120%)					*78 %*				
Surrogate: 2-Fluorophenol (30-120%)					*60 %*				
Surrogate: Nitrobenzene-d5 (45-120%)					*78 %*				
Surrogate: Phenol-d6 (35-120%)					*53 %*				
Surrogate: Terphenyl-d14 (50-125%)					*89 %*				

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HEXANE EXTRACTABLE MATERIAL

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1803-01 (Outfall 012 - Water) - cont.									
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	9B24074	1.3	4.8	**1.5**	1	02/24/09	02/24/09	J

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METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1803-01 (Outfall 012 - Water) - cont.									
Reporting Units: mg/l									
Boron	EPA 200.7	9B23087	0.020	0.050	**0.042**	1	02/23/09	02/24/09	J
Sample ID: ISB1803-01 (Outfall 012 - Water)									
Reporting Units: ug/l									
Cadmium	EPA 200.8	9B24103	0.11	1.0	**0.38**	1	02/24/09	02/25/09	J
Copper	EPA 200.8	9B24103	0.75	2.0	**3.6**	1	02/24/09	02/25/09	
Lead	EPA 200.8	9B24103	0.30	1.0	**2.0**	1	02/24/09	02/25/09	
Selenium	EPA 200.8	9B24103	0.30	2.0	**0.43**	1	02/24/09	02/25/09	B, J
Zinc	EPA 200.8	9B24103	2.5	20	**28**	1	02/24/09	02/25/09	

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DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1803-01 (Outfall 012 - Water) - cont.									
Reporting Units: mg/l									
Boron	EPA 200.7-Diss	9B20105	0.020	0.050	**0.040**	1	02/20/09	02/24/09	J
Sample ID: ISB1803-01 (Outfall 012 - Water)									
Reporting Units: ug/l									
Cadmium	EPA 200.8-Diss	9B20106	0.11	1.0	**0.18**	1	02/20/09	02/24/09	J
Copper	EPA 200.8-Diss	9B20106	0.75	2.0	**2.1**	1	02/20/09	02/23/09	
Lead	EPA 200.8-Diss	9B20106	0.30	1.0	ND	1	02/20/09	02/23/09	
Selenium	EPA 200.8-Diss	9B20106	0.30	2.0	**0.49**	1	02/20/09	02/23/09	J
Zinc	EPA 200.8-Diss	9B20106	2.5	20	**13**	1	02/20/09	02/23/09	J

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INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1803-01 (Outfall 012 - Water) - cont.									
Reporting Units: mg/l									
Ammonia-N (Distilled)	SM4500NH3-C	9B24128	0.50	0.50	**0.84**	1	02/24/09	02/24/09	
Biochemical Oxygen Demand	SM5210B	9B17161	0.50	2.0	**2.5**	1	02/17/09	02/22/09	
Chloride	EPA 300.0	9B16058	0.25	0.50	**20**	1	02/16/09	02/17/09	
Fluoride	SM 4500-F-C	9B20008	0.020	0.10	**0.33**	1	02/20/09	02/20/09	B
Nitrate-N	EPA 300.0	9B16058	0.060	0.11	**1.0**	1	02/16/09	02/17/09	
Nitrite-N	EPA 300.0	9B16058	0.090	0.15	ND	1	02/16/09	02/17/09	C
Nitrate/Nitrite-N	EPA 300.0	9B16058	0.15	0.26	**1.0**	1	02/16/09	02/17/09	
Sulfate	EPA 300.0	9B16058	0.20	0.50	**7.6**	1	02/16/09	02/17/09	
Total Dissolved Solids	SM2540C	9B18065	10	10	**75**	1	02/18/09	02/18/09	
Total Suspended Solids	SM 2540D	9B21068	1.0	10	**4.0**	1	02/21/09	02/21/09	J
Sample ID: ISB1803-01 (Outfall 012 - Water)									
Reporting Units: ml/l									
Total Settleable Solids	SM2540F	9B17065	0.10	0.10	ND	1	02/17/09	02/17/09	pH
Sample ID: ISB1803-01 (Outfall 012 - Water)									
Reporting Units: NTU									
Turbidity	EPA 180.1	9B17067	0.040	1.0	**21**	1	02/17/09	02/17/09	
Sample ID: ISB1803-01 (Outfall 012 - Water)									
Reporting Units: ug/l									
Perchlorate	EPA 314.0	9B18101	0.90	4.0	ND	1	02/18/09	02/18/09	

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MCAWW 245.1

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1803-01 (Outfall 012 - Water) - cont.									
Reporting Units: ug/L									
Mercury	MCAWW 245.1	9050174	0.027	0.2	ND	1	02/19/09	02/19/09	

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MCAWW 245.1-DISS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISB1803-01 (Outfall 012 - Water) - cont.									
Reporting Units: ug/L									
Mercury	MCAWW 245.1-DISS	9050182	0.027	0.2	ND	1	02/19/09	02/19/09	

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SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 012 (ISB1803-01) - Water					
EPA 180.1	2	02/16/2009 13:10	02/16/2009 18:20	02/17/2009 09:30	02/17/2009 12:55
EPA 300.0	2	02/16/2009 13:10	02/16/2009 18:20	02/16/2009 21:00	02/17/2009 03:15
Filtration	1	02/16/2009 13:10	02/16/2009 18:20	02/17/2009 00:29	02/17/2009 00:33
SM2540F	2	02/16/2009 13:10	02/16/2009 18:20	02/17/2009 09:45	02/17/2009 09:45
SM5210B	2	02/16/2009 13:10	02/16/2009 18:20	02/17/2009 23:16	02/22/2009 11:00

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METHOD BLANK/QC DATA

EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B19076 Extracted: 02/19/09											
Blank Analyzed: 02/19/2009 (9B19076-BLK1)											
DRO (C13 - C28)	ND	0.10	0.050	mg/l							
EFH (C10 - C28)	ND	0.10	0.050	mg/l							
Surrogate: n-Octacosane	*0.106*			*mg/l*	*0.200*		*53*	*40-125*			
LCS Analyzed: 02/19/2009 (9B19076-BS1)											**MNR1**
EFH (C10 - C28)	0.498	0.10	0.050	mg/l	1.00		50	40-115			
Surrogate: n-Octacosane	*0.129*			*mg/l*	*0.200*		*65*	*40-125*			
LCS Dup Analyzed: 02/19/2009 (9B19076-BSD1)											
EFH (C10 - C28)	0.575	0.10	0.050	mg/l	1.00		58	40-115	14	25	
Surrogate: n-Octacosane	*0.144*			*mg/l*	*0.200*		*72*	*40-125*			

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METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/8015)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B21002 Extracted: 02/21/09											
Blank Analyzed: 02/21/2009 (9B21002-BLK1)											
GRO (C4 - C12)	ND	0.050	0.030	mg/l							
Surrogate: 4-BFB (FID)	*0.00986*			*mg/l*	*0.0100*		*99*	*65-140*			
LCS Analyzed: 02/21/2009 (9B21002-BS1)											
GRO (C4 - C12)	0.814	0.050	0.030	mg/l	0.800		102	80-120			
Surrogate: 4-BFB (FID)	*0.0138*			*mg/l*	*0.0100*		*138*	*65-140*			
Matrix Spike Analyzed: 02/21/2009 (9B21002-MS1)						**Source: ISB1906-03**					
GRO (C4 - C12)	0.270	0.050	0.030	mg/l	0.220	0.0336	107	65-140			
Surrogate: 4-BFB (FID)	*0.0119*			*mg/l*	*0.0100*		*119*	*65-140*			
Matrix Spike Dup Analyzed: 02/21/2009 (9B21002-MSD1)						**Source: ISB1906-03**					
GRO (C4 - C12)	0.275	0.050	0.030	mg/l	0.220	0.0336	110	65-140	2	20	
Surrogate: 4-BFB (FID)	*0.0126*			*mg/l*	*0.0100*		*126*	*65-140*			

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METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B23014 Extracted: 02/23/09											
Blank Analyzed: 02/23/2009 (9B23014-BLK1)											
1,2-Dibromoethane (EDB)	ND	0.50	0.40	ug/l							
1,2,3-Trichloropropane	ND	1.0	0.40	ug/l							
Di-isopropyl Ether (DIPE)	ND	0.50	0.25	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	0.50	0.32	ug/l							
tert-Butanol (TBA)	ND	10	6.5	ug/l							
Surrogate: 4-Bromofluorobenzene	*23.3*			*ug/l*	*25.0*		*93*	*80-120*			
Surrogate: Dibromofluoromethane	*22.8*			*ug/l*	*25.0*		*91*	*80-120*			
Surrogate: Toluene-d8	*23.7*			*ug/l*	*25.0*		*95*	*80-120*			
LCS Analyzed: 02/23/2009 (9B23014-BS1)											
1,2-Dibromoethane (EDB)	27.1	0.50	0.40	ug/l	25.0		108	75-125			
1,2,3-Trichloropropane	24.0	1.0	0.40	ug/l	25.0		96	60-130			
Di-isopropyl Ether (DIPE)	20.4	0.50	0.25	ug/l	25.0		82	60-135			
Methyl-tert-butyl Ether (MTBE)	24.2	0.50	0.32	ug/l	25.0		97	60-135			
tert-Butanol (TBA)	139	10	6.5	ug/l	125		112	70-135			
Surrogate: 4-Bromofluorobenzene	*23.6*			*ug/l*	*25.0*		*95*	*80-120*			
Surrogate: Dibromofluoromethane	*22.9*			*ug/l*	*25.0*		*91*	*80-120*			
Surrogate: Toluene-d8	*23.8*			*ug/l*	*25.0*		*95*	*80-120*			
Matrix Spike Analyzed: 02/23/2009 (9B23014-MS1)						**Source: ISB1678-02**					
1,2-Dibromoethane (EDB)	27.3	0.50	0.40	ug/l	25.0	ND	109	70-130			
1,2,3-Trichloropropane	23.6	1.0	0.40	ug/l	25.0	ND	94	55-135			
Di-isopropyl Ether (DIPE)	19.7	0.50	0.25	ug/l	25.0	ND	79	60-140			
Methyl-tert-butyl Ether (MTBE)	23.9	0.50	0.32	ug/l	25.0	ND	95	55-145			
tert-Butanol (TBA)	128	10	6.5	ug/l	125	ND	103	65-140			
Surrogate: 4-Bromofluorobenzene	*24.4*			*ug/l*	*25.0*		*97*	*80-120*			
Surrogate: Dibromofluoromethane	*23.3*			*ug/l*	*25.0*		*93*	*80-120*			
Surrogate: Toluene-d8	*24.0*			*ug/l*	*25.0*		*96*	*80-120*			

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Project ID: Alpha Test Stand
Report Number: ISB1803

Sampled: 02/16/09
Received: 02/16/09

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B23014 Extracted: 02/23/09											
Matrix Spike Dup Analyzed: 02/23/2009 (9B23014-MSD1)						**Source: ISB1678-02**					
1,2-Dibromoethane (EDB)	28.8	0.50	0.40	ug/l	25.0	ND	115	70-130	5	25	
1,2,3-Trichloropropane	26.8	1.0	0.40	ug/l	25.0	ND	107	55-135	13	30	
Di-isopropyl Ether (DIPE)	21.2	0.50	0.25	ug/l	25.0	ND	85	60-140	7	25	
Methyl-tert-butyl Ether (MTBE)	25.7	0.50	0.32	ug/l	25.0	ND	103	55-145	7	25	
tert-Butanol (TBA)	134	10	6.5	ug/l	125	ND	107	65-140	4	25	
Surrogate: 4-Bromofluorobenzene	*23.8*			*ug/l*	*25.0*		*95*	*80-120*			
Surrogate: Dibromofluoromethane	*23.3*			*ug/l*	*25.0*		*93*	*80-120*			
Surrogate: Toluene-d8	*24.1*			*ug/l*	*25.0*		*96*	*80-120*			
Batch: 9B25033 Extracted: 02/25/09											
Blank Analyzed: 02/25/2009 (9B25033-BLK1)											
1,2-Dibromoethane (EDB)	ND	0.50	0.40	ug/l							
1,2,3-Trichloropropane	ND	1.0	0.40	ug/l							
Di-isopropyl Ether (DIPE)	ND	0.50	0.25	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	0.50	0.32	ug/l							
tert-Butanol (TBA)	ND	10	6.5	ug/l							
Surrogate: 4-Bromofluorobenzene	*25.3*			*ug/l*	*25.0*		*101*	*80-120*			
Surrogate: Dibromofluoromethane	*24.6*			*ug/l*	*25.0*		*98*	*80-120*			
Surrogate: Toluene-d8	*25.8*			*ug/l*	*25.0*		*103*	*80-120*			
LCS Analyzed: 02/25/2009 (9B25033-BS1)											
1,2-Dibromoethane (EDB)	26.6	0.50	0.40	ug/l	25.0		107	75-125			
1,2,3-Trichloropropane	28.5	1.0	0.40	ug/l	25.0		114	60-130			
Di-isopropyl Ether (DIPE)	26.2	0.50	0.25	ug/l	25.0		105	60-135			
Methyl-tert-butyl Ether (MTBE)	26.9	0.50	0.32	ug/l	25.0		107	60-135			
tert-Butanol (TBA)	133	10	6.5	ug/l	125		106	70-135			
Surrogate: 4-Bromofluorobenzene	*25.0*			*ug/l*	*25.0*		*100*	*80-120*			
Surrogate: Dibromofluoromethane	*25.7*			*ug/l*	*25.0*		*103*	*80-120*			
Surrogate: Toluene-d8	*25.8*			*ug/l*	*25.0*		*103*	*80-120*			

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METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B25033 Extracted: 02/25/09											
Matrix Spike Analyzed: 02/25/2009 (9B25033-MS1)						**Source: ISB2484-01**					
1,2-Dibromoethane (EDB)	26.7	0.50	0.40	ug/l	25.0	ND	107	70-130			
1,2,3-Trichloropropane	26.2	1.0	0.40	ug/l	25.0	ND	105	55-135			
Di-isopropyl Ether (DIPE)	27.8	0.50	0.25	ug/l	25.0	ND	111	60-140			
Methyl-tert-butyl Ether (MTBE)	27.9	0.50	0.32	ug/l	25.0	ND	112	55-145			
tert-Butanol (TBA)	120	10	6.5	ug/l	125	ND	96	65-140			
Surrogate: 4-Bromofluorobenzene	*25.3*			*ug/l*	*25.0*		*101*	*80-120*			
Surrogate: Dibromofluoromethane	*26.4*			*ug/l*	*25.0*		*105*	*80-120*			
Surrogate: Toluene-d8	*25.6*			*ug/l*	*25.0*		*102*	*80-120*			
Matrix Spike Dup Analyzed: 02/25/2009 (9B25033-MSD1)						**Source: ISB2484-01**					
1,2-Dibromoethane (EDB)	30.6	0.50	0.40	ug/l	25.0	ND	122	70-130	13	25	
1,2,3-Trichloropropane	30.9	1.0	0.40	ug/l	25.0	ND	124	55-135	17	30	
Di-isopropyl Ether (DIPE)	31.5	0.50	0.25	ug/l	25.0	ND	126	60-140	12	25	
Methyl-tert-butyl Ether (MTBE)	32.4	0.50	0.32	ug/l	25.0	ND	130	55-145	15	25	
tert-Butanol (TBA)	129	10	6.5	ug/l	125	ND	104	65-140	8	25	
Surrogate: 4-Bromofluorobenzene	*25.2*			*ug/l*	*25.0*		*101*	*80-120*			
Surrogate: Dibromofluoromethane	*26.7*			*ug/l*	*25.0*		*107*	*80-120*			
Surrogate: Toluene-d8	*26.5*			*ug/l*	*25.0*		*106*	*80-120*			

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METHOD BLANK/QC DATA

1,4-DIOXANE BY DIRECT INJECTION GCMS - SINGLE ION MONITORING (SIM)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B19013 Extracted: 02/19/09											
Blank Analyzed: 02/19/2009 (9B19013-BLK1)											
1,4-Dioxane	ND	2.0	1.0	ug/l							
Surrogate: Dibromofluoromethane	*0.990*			*ug/l*	*1.00*		*99*	*80-120*			
LCS Analyzed: 02/19/2009 (9B19013-BS1)											
1,4-Dioxane	11.0	2.0	1.0	ug/l	10.0		110	70-125			
Surrogate: Dibromofluoromethane	*1.03*			*ug/l*	*1.00*		*103*	*80-120*			
Matrix Spike Analyzed: 02/19/2009 (9B19013-MS1)						**Source: ISB1803-01**					
1,4-Dioxane	11.7	2.0	1.0	ug/l	10.0	ND	117	70-130			
Surrogate: Dibromofluoromethane	*1.03*			*ug/l*	*1.00*		*103*	*80-120*			
Matrix Spike Dup Analyzed: 02/19/2009 (9B19013-MSD1)						**Source: ISB1803-01**					
1,4-Dioxane	10.7	2.0	1.0	ug/l	10.0	ND	107	70-130	10	30	
Surrogate: Dibromofluoromethane	*1.01*			*ug/l*	*1.00*		*101*	*80-120*			

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METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B17084 Extracted: 02/17/09											
Blank Analyzed: 02/20/2009 (9B17084-BLK1)											
Naphthalene	ND	10	3.0	ug/l							
N-Nitrosodimethylamine	ND	20	2.5	ug/l							
Surrogate: 2,4,6-Tribromophenol	*157*			*ug/l*	*200*		*79*	*40-120*			
Surrogate: 2-Fluorobiphenyl	*76.3*			*ug/l*	*100*		*76*	*50-120*			
Surrogate: 2-Fluorophenol	*126*			*ug/l*	*200*		*63*	*30-120*			
Surrogate: Nitrobenzene-d5	*75.7*			*ug/l*	*100*		*76*	*45-120*			
Surrogate: Phenol-d6	*137*			*ug/l*	*200*		*68*	*35-120*			
Surrogate: Terphenyl-d14	*84.4*			*ug/l*	*100*		*84*	*50-125*			
LCS Analyzed: 02/20/2009 (9B17084-BS1)											**MNR1**
Naphthalene	76.1	10	3.0	ug/l	100		76	55-120			
N-Nitrosodimethylamine	74.6	20	2.5	ug/l	100		75	45-120			
Surrogate: 2,4,6-Tribromophenol	*162*			*ug/l*	*200*		*81*	*40-120*			
Surrogate: 2-Fluorobiphenyl	*77.3*			*ug/l*	*100*		*77*	*50-120*			
Surrogate: 2-Fluorophenol	*123*			*ug/l*	*200*		*61*	*30-120*			
Surrogate: Nitrobenzene-d5	*78.6*			*ug/l*	*100*		*79*	*45-120*			
Surrogate: Phenol-d6	*134*			*ug/l*	*200*		*67*	*35-120*			
Surrogate: Terphenyl-d14	*86.0*			*ug/l*	*100*		*86*	*50-125*			
LCS Dup Analyzed: 02/20/2009 (9B17084-BSD1)											
Naphthalene	72.6	10	3.0	ug/l	100		73	55-120	5	20	
N-Nitrosodimethylamine	72.5	20	2.5	ug/l	100		72	45-120	3	20	
Surrogate: 2,4,6-Tribromophenol	*153*			*ug/l*	*200*		*76*	*40-120*			
Surrogate: 2-Fluorobiphenyl	*74.8*			*ug/l*	*100*		*75*	*50-120*			
Surrogate: 2-Fluorophenol	*119*			*ug/l*	*200*		*60*	*30-120*			
Surrogate: Nitrobenzene-d5	*74.8*			*ug/l*	*100*		*75*	*45-120*			
Surrogate: Phenol-d6	*130*			*ug/l*	*200*		*65*	*35-120*			
Surrogate: Terphenyl-d14	*81.7*			*ug/l*	*100*		*82*	*50-125*			

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METHOD BLANK/QC DATA

HEXANE EXTRACTABLE MATERIAL

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B24074 Extracted: 02/24/09											
Blank Analyzed: 02/24/2009 (9B24074-BLK1)											
Hexane Extractable Material (Oil & Grease)	ND	5.0	1.4	mg/l							
LCS Analyzed: 02/24/2009 (9B24074-BS1)											
Hexane Extractable Material (Oil & Grease)	19.2	5.0	1.4	mg/l	20.0		96	78-114			
LCS Dup Analyzed: 02/24/2009 (9B24074-BSD1)											
Hexane Extractable Material (Oil & Grease)	18.8	5.0	1.4	mg/l	20.0		94	78-114	2	11	
Matrix Spike Analyzed: 02/24/2009 (9B24074-MS1)						**Source: ISB2624-01**					
Hexane Extractable Material (Oil & Grease)	21.1	4.8	1.3	mg/l	19.1	3.73	90	78-114			

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B23087 Extracted: 02/23/09											
Blank Analyzed: 02/24/2009 (9B23087-BLK1)											
Boron	ND	0.050	0.020	mg/l							
LCS Analyzed: 02/24/2009 (9B23087-BS1)											
Boron	0.497	0.050	0.020	mg/l	0.500		99	85-115			
Matrix Spike Analyzed: 02/24/2009 (9B23087-MS1)						**Source: ISB1733-01RE1**					
Boron	1.06	0.050	0.020	mg/l	0.500	0.576	97	70-130			
Matrix Spike Analyzed: 02/24/2009 (9B23087-MS2)						**Source: ISB1806-01**					
Boron	0.476	0.050	0.020	mg/l	0.500	ND	95	70-130			
Matrix Spike Dup Analyzed: 02/24/2009 (9B23087-MSD1)						**Source: ISB1733-01RE1**					
Boron	1.10	0.050	0.020	mg/l	0.500	0.576	104	70-130	3	20	
Batch: 9B24103 Extracted: 02/24/09											
Blank Analyzed: 02/25/2009 (9B24103-BLK1)											
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.30	ug/l							
Selenium	0.338	2.0	0.30	ug/l							*J*
Zinc	ND	20	2.5	ug/l							
LCS Analyzed: 02/25/2009 (9B24103-BS1)											
Cadmium	84.2	1.0	0.11	ug/l	80.0		105	85-115			
Copper	84.9	2.0	0.75	ug/l	80.0		106	85-115			
Lead	85.2	1.0	0.30	ug/l	80.0		106	85-115			
Selenium	82.7	2.0	0.30	ug/l	80.0		103	85-115			
Zinc	83.6	20	2.5	ug/l	80.0		105	85-115			

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METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B24103 Extracted: 02/24/09											
Matrix Spike Analyzed: 02/25/2009 (9B24103-MS1)						**Source: ISB1943-01**					
Cadmium	69.9	1.0	0.11	ug/l	80.0	0.135	87	70-130			
Copper	81.9	2.0	0.75	ug/l	80.0	2.72	99	70-130			
Lead	69.0	1.0	0.30	ug/l	80.0	ND	86	70-130			
Selenium	77.8	2.0	0.30	ug/l	80.0	8.29	87	70-130			
Zinc	80.2	20	2.5	ug/l	80.0	3.17	96	70-130			
Matrix Spike Analyzed: 02/25/2009 (9B24103-MS2)						**Source: ISB2089-01**					
Cadmium	85.4	1.0	0.11	ug/l	80.0	ND	107	70-130			
Copper	80.6	2.0	0.75	ug/l	80.0	3.40	97	70-130			
Lead	85.9	1.0	0.30	ug/l	80.0	ND	107	70-130			
Selenium	79.5	2.0	0.30	ug/l	80.0	1.32	98	70-130			
Zinc	75.9	20	2.5	ug/l	80.0	ND	95	70-130			
Matrix Spike Dup Analyzed: 02/25/2009 (9B24103-MSD1)						**Source: ISB1943-01**					
Cadmium	71.3	1.0	0.11	ug/l	80.0	0.135	89	70-130	2	20	
Copper	83.3	2.0	0.75	ug/l	80.0	2.72	101	70-130	2	20	
Lead	69.7	1.0	0.30	ug/l	80.0	ND	87	70-130	1	20	
Selenium	79.2	2.0	0.30	ug/l	80.0	8.29	89	70-130	2	20	
Zinc	78.1	20	2.5	ug/l	80.0	3.17	94	70-130	3	20	

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METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B20105 Extracted: 02/20/09											
Blank Analyzed: 02/24/2009 (9B20105-BLK1)											
Boron	ND	0.050	0.020	mg/l							
LCS Analyzed: 02/24/2009 (9B20105-BS1)											
Boron	0.473	0.050	0.020	mg/l	0.500		95	85-115			
Matrix Spike Analyzed: 02/24/2009 (9B20105-MS1)						**Source: ISB1822-01**					
Boron	0.525	0.050	0.020	mg/l	0.500	0.0464	96	70-130			
Matrix Spike Analyzed: 02/24/2009 (9B20105-MS2)						**Source: ISB1823-01**					
Boron	0.484	0.050	0.020	mg/l	0.500	0.0201	93	70-130			
Matrix Spike Dup Analyzed: 02/24/2009 (9B20105-MSD1)						**Source: ISB1822-01**					
Boron	0.522	0.050	0.020	mg/l	0.500	0.0464	95	70-130	1	20	
Batch: 9B20106 Extracted: 02/20/09											
Blank Analyzed: 02/23/2009 (9B20106-BLK1)											
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.30	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Zinc	3.33	20	2.5	ug/l							*J*
LCS Analyzed: 02/23/2009 (9B20106-BS1)											
Cadmium	83.3	1.0	0.11	ug/l	80.0		104	85-115			
Copper	78.1	2.0	0.75	ug/l	80.0		98	85-115			
Lead	83.7	1.0	0.30	ug/l	80.0		105	85-115			
Selenium	76.6	2.0	0.30	ug/l	80.0		96	85-115			
Zinc	88.5	20	2.5	ug/l	80.0		111	85-115			

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DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B20106 Extracted: 02/20/09											
Matrix Spike Analyzed: 02/23/2009 (9B20106-MS1)						**Source: ISB1693-01**					
Cadmium	82.0	1.0	0.11	ug/l	80.0	ND	103	70-130			
Copper	78.5	2.0	0.75	ug/l	80.0	1.32	97	70-130			
Lead	83.6	1.0	0.30	ug/l	80.0	ND	105	70-130			
Selenium	74.0	2.0	0.30	ug/l	80.0	ND	92	70-130			
Zinc	75.9	20	2.5	ug/l	80.0	2.51	92	70-130			
Matrix Spike Analyzed: 02/23/2009 (9B20106-MS2)						**Source: ISB1694-01**					
Cadmium	82.9	1.0	0.11	ug/l	80.0	ND	104	70-130			
Copper	76.3	2.0	0.75	ug/l	80.0	1.12	94	70-130			
Lead	81.7	1.0	0.30	ug/l	80.0	ND	102	70-130			
Selenium	74.5	2.0	0.30	ug/l	80.0	ND	93	70-130			
Zinc	76.9	20	2.5	ug/l	80.0	ND	96	70-130			
Matrix Spike Dup Analyzed: 02/23/2009 (9B20106-MSD1)						**Source: ISB1693-01**					
Cadmium	84.3	1.0	0.11	ug/l	80.0	ND	105	70-130	3	20	
Copper	78.9	2.0	0.75	ug/l	80.0	1.32	97	70-130	0	20	
Lead	83.6	1.0	0.30	ug/l	80.0	ND	105	70-130	0	20	
Selenium	75.7	2.0	0.30	ug/l	80.0	ND	95	70-130	2	20	
Zinc	80.3	20	2.5	ug/l	80.0	2.51	97	70-130	6	20	

TestAmerica Irvine

Joseph Doak
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Alpha Test Stand
Report Number: ISB1803

Sampled: 02/16/09
Received: 02/16/09

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B16058 Extracted: 02/16/09											
Blank Analyzed: 02/16/2009 (9B16058-BLK1)											
Chloride	ND	0.50	0.25	mg/l							
Nitrate-N	ND	0.11	0.060	mg/l							
Nitrite-N	ND	0.15	0.090	mg/l							
Nitrate/Nitrite-N	ND	0.26	0.15	mg/l							
Sulfate	ND	0.50	0.20	mg/l							
LCS Analyzed: 02/16/2009 (9B16058-BS1)											
Chloride	4.76	0.50	0.25	mg/l	5.00		95	90-110			*M-3*
Nitrate-N	1.09	0.11	0.060	mg/l	1.13		96	90-110			
Nitrite-N	1.61	0.15	0.090	mg/l	1.52		106	90-110			
Sulfate	9.85	0.50	0.20	mg/l	10.0		99	90-110			*M-3*
Matrix Spike Analyzed: 02/16/2009 (9B16058-MS1)						**Source: ISB1759-01**					
Nitrate-N	4.10	0.11	0.060	mg/l	1.13	2.87	109	80-120			
Nitrite-N	1.85	0.15	0.090	mg/l	1.52	0.147	112	80-120			
Matrix Spike Analyzed: 02/17/2009 (9B16058-MS2)						**Source: ISB1799-01**					
Chloride	124	2.5	1.2	mg/l	5.00	123	18	80-120			*MHA*
Nitrate-N	9.40	0.55	0.30	mg/l	1.13	8.59	71	80-120			*MHA*
Nitrite-N	1.87	0.75	0.45	mg/l	1.52	0.124	115	80-120			
Sulfate	126	2.5	1.0	mg/l	10.0	120	56	80-120			*MHA*
Matrix Spike Dup Analyzed: 02/16/2009 (9B16058-MSD1)						**Source: ISB1759-01**					
Nitrate-N	4.12	0.11	0.060	mg/l	1.13	2.87	111	80-120	1	20	
Nitrite-N	1.85	0.15	0.090	mg/l	1.52	0.147	112	80-120	0	20	
Batch: 9B17067 Extracted: 02/17/09											
Blank Analyzed: 02/17/2009 (9B17067-BLK1)											
Turbidity	ND	1.0	0.040	NTU							

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MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Alpha Test Stand
Report Number: ISB1803

Sampled: 02/16/09
Received: 02/16/09

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B17067 Extracted: 02/17/09											
Duplicate Analyzed: 02/17/2009 (9B17067-DUP1)						**Source: ISB1815-01**					
Turbidity	20.2	1.0	0.040	NTU		20.9			3	20	
Duplicate Analyzed: 02/17/2009 (9B17067-DUP2)						**Source: ISB1831-01**					
Turbidity	430	20	0.80	NTU		440			2	20	
Batch: 9B17161 Extracted: 02/17/09											
Blank Analyzed: 02/22/2009 (9B17161-BLK1)											
Biochemical Oxygen Demand	ND	2.0	0.50	mg/l							
LCS Analyzed: 02/22/2009 (9B17161-BS1)											
Biochemical Oxygen Demand	178	100	25	mg/l	198		90	85-115			
LCS Dup Analyzed: 02/22/2009 (9B17161-BSD1)											
Biochemical Oxygen Demand	186	100	25	mg/l	198		94	85-115	4	20	
Batch: 9B18065 Extracted: 02/18/09											
Blank Analyzed: 02/18/2009 (9B18065-BLK1)											
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 02/18/2009 (9B18065-BS1)											
Total Dissolved Solids	982	10	10	mg/l	1000		98	90-110			
Duplicate Analyzed: 02/18/2009 (9B18065-DUP1)						**Source: ISB1930-01**					
Total Dissolved Solids	177	10	10	mg/l		172			3	10	

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Attention: Bronwyn Kelly

Project ID: Alpha Test Stand
Report Number: ISB1803

Sampled: 02/16/09
Received: 02/16/09

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B18101 Extracted: 02/18/09											
Blank Analyzed: 02/18/2009 (9B18101-BLK1)											
Perchlorate	ND	4.0	0.90	ug/l							
LCS Analyzed: 02/18/2009 (9B18101-BS1)											
Perchlorate	23.9	4.0	0.90	ug/l	25.0		96	85-115			
Matrix Spike Analyzed: 02/18/2009 (9B18101-MS1)						**Source: ISB1967-03**					
Perchlorate	24.1	4.0	0.90	ug/l	25.0	1.76	89	80-120			
Matrix Spike Dup Analyzed: 02/18/2009 (9B18101-MSD1)						**Source: ISB1967-03**					
Perchlorate	23.7	4.0	0.90	ug/l	25.0	1.76	88	80-120	2	20	
Batch: 9B20008 Extracted: 02/20/09											
Blank Analyzed: 02/20/2009 (9B20008-BLK1)											
Fluoride	0.0341	0.10	0.020	mg/l							*J*
LCS Analyzed: 02/20/2009 (9B20008-BS1)											
Fluoride	0.988	0.10	0.020	mg/l	1.00		99	90-110			
Matrix Spike Analyzed: 02/20/2009 (9B20008-MS1)						**Source: ISB1530-03**					
Fluoride	1.31	0.10	0.020	mg/l	1.00	0.360	95	80-120			
Matrix Spike Dup Analyzed: 02/20/2009 (9B20008-MSD1)						**Source: ISB1530-03**					
Fluoride	1.32	0.10	0.020	mg/l	1.00	0.360	96	80-120	1	20	
Batch: 9B21068 Extracted: 02/21/09											
Blank Analyzed: 02/21/2009 (9B21068-BLK1)											
Total Suspended Solids	ND	10	1.0	mg/l							

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Sampled: 02/16/09
Received: 02/16/09

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9B21068 Extracted: 02/21/09											
LCS Analyzed: 02/21/2009 (9B21068-BS1)											
Total Suspended Solids	990	10	1.0	mg/l	1000		99	85-115			
Duplicate Analyzed: 02/21/2009 (9B21068-DUP1)						**Source: ISB1750-01**					
Total Suspended Solids	105	10	1.0	mg/l		106			1	10	
Batch: 9B24128 Extracted: 02/24/09											
Blank Analyzed: 02/24/2009 (9B24128-BLK1)											
Ammonia-N (Distilled)	ND	0.50	0.50	mg/l							
LCS Analyzed: 02/24/2009 (9B24128-BS1)											
Ammonia-N (Distilled)	10.6	0.50	0.50	mg/l	10.0		106	80-115			
Matrix Spike Analyzed: 02/24/2009 (9B24128-MS1)						**Source: ISB1703-01**					
Ammonia-N (Distilled)	10.1	0.50	0.50	mg/l	10.0	0.560	95	70-120			
Matrix Spike Dup Analyzed: 02/24/2009 (9B24128-MSD1)						**Source: ISB1703-01**					
Ammonia-N (Distilled)	10.1	0.50	0.50	mg/l	10.0	0.560	95	70-120	0	15	

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Attention: Bronwyn Kelly

Project ID: Alpha Test Stand
Report Number: ISB1803

Sampled: 02/16/09
Received: 02/16/09

METHOD BLANK/QC DATA

MCAWW 245.1

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9050174 Extracted: 02/19/09											
Blank Analyzed: 02/19/2009 (D9B190000174B)						**Source:**					
Mercury	ND	0.2	0.027	ug/L				-			
LCS Analyzed: 02/19/2009 (D9B190000174C)						**Source:**					
Mercury	4.78	0.2	0.027	ug/L	5		96	90-110			
Matrix Spike Dup Analyzed: 02/19/2009 (D9B190119001D)						**Source: D9B190119001**					
Mercury	4.29	0.2	0.027	ug/L	5	0.032	85	90-110	0	10	*N*
Matrix Spike Analyzed: 02/19/2009 (D9B190119001S)						**Source: D9B190119001**					
Mercury	4.29	0.2	0.027	ug/L	5	0.032	85	90-110	0	10	*N*

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Report Number: ISB1803

Sampled: 02/16/09
Received: 02/16/09

METHOD BLANK/QC DATA

MCAWW 245.1-DISS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9050182 Extracted: 02/19/09											
Blank Analyzed: 02/19/2009 (D9B190000182B)						**Source:**					
Mercury	ND	0.2	0.027	ug/L				-			
LCS Analyzed: 02/19/2009 (D9B190000182C)						**Source:**					
Mercury	4.63	0.2	0.027	ug/L	5		93	90-110			
Matrix Spike Dup Analyzed: 02/19/2009 (D9B190119001D)						**Source: D9B190119001**					
Mercury	4.55	0.2	0.027	ug/L	5	0.03	90	90-110	0	10	
Matrix Spike Analyzed: 02/19/2009 (D9B190119001S)						**Source: D9B190119001**					
Mercury	4.57	0.2	0.027	ug/L	5	0.03	91	90-110	0	10	

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Report Number: ISB1803

Sampled: 02/16/09
Received: 02/16/09

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
ISB1803-01	1664-HEM	Hexane Extractable Material (Oil & Greas	mg/l	1.54	4.8	15
ISB1803-01	624-Boeing 012/013/014 DT, LOW	1,2-Dibromoethane (EDB)	ug/l	0	0.50	50
ISB1803-01	624-Boeing 012/013/014 DT, LOW	tert-Butanol (TBA)	ug/l	0	10	12
ISB1803-01	625-Boeing 012/013/014 DT	Naphthalene	ug/l	0	9.6	21
ISB1803-01	8015B-DRO(C13-C28)-LowRL	DRO (C13 - C28)	mg/l	0.0058	0.094	0.1
ISB1803-01	8015B-GRO(C4-C12)	GRO (C4 - C12)	mg/l	0.015	0.050	0.1
ISB1803-01	8260B-SIM 1,4-Dioxane	1,4-Dioxane	ug/l	0	2.0	3
ISB1803-01	Ammonia-N, Titr 4500NH3-C (w/di	Ammonia-N (Distilled)	mg/l	0.84	0.50	10
ISB1803-01	Boron-200.7	Boron	mg/l	0.042	0.050	1
ISB1803-01	Cadmium-200.8	Cadmium	ug/l	0.38	1.0	3.1
ISB1803-01	Chloride - 300.0	Chloride	mg/l	20	0.50	150
ISB1803-01	Copper-200.8	Copper	ug/l	3.64	2.0	14
ISB1803-01	Fluoride SM4500F,C	Fluoride	mg/l	0.33	0.10	1.6
ISB1803-01	Lead-200.8	Lead	ug/l	1.96	1.0	5.2
ISB1803-01	Nitrate-N, 300.0	Nitrate-N	mg/l	1.04	0.11	8
ISB1803-01	Nitrite-N, 300.0	Nitrite-N	mg/l	0	0.15	1
ISB1803-01	Nitrogen, NO3+NO2 -N	Nitrate/Nitrite-N	mg/l	1.04	0.26	8
ISB1803-01	Perchlorate 314.0-DEFAULT	Perchlorate	ug/l	0	4.0	6
ISB1803-01	Selenium-200.8	Selenium	ug/l	0.43	2.0	5
ISB1803-01	Settleable Solids - SM2540F	Total Settleable Solids	ml/l	0	0.10	0.3
ISB1803-01	Sulfate-300.0	Sulfate	mg/l	7.61	0.50	300
ISB1803-01	TDS - SM2540C	Total Dissolved Solids	mg/l	75	10	950
ISB1803-01	TSS - SM2540D	Total Suspended Solids	mg/l	4.00	10	45
ISB1803-01	Zinc-200.8	Zinc	ug/l	28	20	160

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
ISB1803-02	624-Boeing 012/013/014 DT, LOW	1,2-Dibromoethane (EDB)	ug/l	0	0.50	50
ISB1803-02	**624-Boeing 012/013/014 DT, LOW**	**tert-Butanol (TBA)**	**ug/l**	**18**	**10**	**12**

TestAmerica Irvine

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MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
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Attention: Bronwyn Kelly

Project ID: Alpha Test Stand
Report Number: ISB1803

Sampled: 02/16/09
Received: 02/16/09

DATA QUALIFIERS AND DEFINITIONS

A-01	Result Confirmed
B	Analyte was detected in the associated Method Blank.
C	Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
J	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
M-3	Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
MHA	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
MNR1	There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
N	Spike sample recovery is outside control limits.
pH	pH = 5
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

ADDITIONAL COMMENTS

For GRO (C4-C12):

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak.

For Extractable Fuel Hydrocarbons (EFH, DRO, ORO) :

Unless otherwise noted, Extractable Fuel Hydrocarbons (EFH, DRO, ORO) are quantitated against a Diesel Fuel Standard.

TestAmerica Irvine

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Attention: Bronwyn Kelly

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Report Number: ISB1803

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Received: 02/16/09

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 1664A	Water	X	X
EPA 180.1	Water	X	X
EPA 200.7-Diss	Water	X	X
EPA 200.7	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 300.0	Water	X	X
EPA 314.0	Water	X	X
EPA 624	Water	X	X
EPA 625	Water	X	X
EPA 8015B	Water	X	X
EPA 8260B-SIM	Water	X	X
Filtration	Water	N/A	N/A
SM 2540D	Water	X	X
SM 4500-F-C	Water	X	X
SM2540C	Water	X	
SM2540F	Water	X	X
SM4500NH3-C	Water	X	X
SM5210B	Water	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

TestAmerica Denver
4955 Yarrow Street - Arvada, CO 80002

Method Performed: MCAWW 245.1
Samples: ISB1803-01

Method Performed: MCAWW 245.1-DISS
Samples: ISB1803-01

Vista Analytical *NELAC Cert #02102CA, California Cert #1640, Nevada Cert #CA-413*
1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed: 1613-Dioxin-HR-Alta
Samples: ISB1803-01

TestAmerica Irvine

Joseph Doak
Project Manager

ISB1803

Test America Version 12/20/07

CHAIN OF CUSTODY FORM

EW

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Test America Contact: Joseph Doak	Boeing-SSFL NPDES **Routine Outfall 012** Alpha Test Stand
Project Manager: Bronwyn Kelly Sampler: Pollock	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

Field readings:
Temp = 47.5
pH = 7.26
Time of readings = 1310

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Oil & Grease (1664-HEM)	8015 Mod Gas (C6-C12)	8015 Mod diesel/jet fuel (C13-C28)	Total Rec. Petroleum Hydrocarbons (8015)	1,4-Dioxane (8260B)	BOD_5 (20 degrees C)	625 (Naphthalene +NDMA analysis)	Ammonia-N (350.2)	Cl^-, SO_4, F, NO_3+NO_2-N, Perchlorate	Nitrate-N, Nitrite-N	Comments
Outfall 012	W	1L Amber	1	2-16-09 1310	HCl	1A	X										
Outfall 012 Dup	W	1L Amber	1		HCl	1B	X										
Outfall 012	W	VOAs	1		HCl	2A		X									
Outfall 012 Dup	W	VOAs	2		HCl	2B, 2C		X									
Outfall 012	W	1L Amber	1		None	3A			X								
Outfall 012 Dup	W	1L Amber	1		None	3B			X								
Outfall 012	**W**	**1L Amber**	**1**		**HCl**	**4A**				X							
Outfall 012 Dup	**W**	**1L Amber**	**1**		**HCl**	**4B**				X							
Outfall 012	W	VOAs	1		HCl	5A					X						
Outfall 012 Dup	W	VOAs	2		HCl	5B, 5C					X						
Outfall 012	W	1L Poly	1		None	6						X					
Outfall 012	W	1L Amber	1		None	7A							X				
Outfall 012 Dup	W	1L Amber	1		None	7B							X				
Outfall 012	W	500 ml Poly	1		H_2SO_4	8								X			
Outfall 012	W	500 ml Poly	2		None	9A, 9B									X		
Outfall 012	W	500 ml Poly	1		None	10										X	

EW

EW

Relinquished By	Date/Time:	Received By	Date/Time:
	2-16-09 1545		2/6/09 1545
Relinquished By	Date/Time:	Received By	Date/Time:
	2-16-09 1820		
Relinquished By	Date/Time:	Received By	Date/Time:
			2/6/09 1820

Turn around Time: (check)
24 Hours _____ 5 Days _____
48 Hours _____ 10 Days _____
72 Hours _____ Normal ✓

Sample Integrity: (check)
Intact X On Ice: 4.0 3.4

Data Requirements: (check)
No Level IV ____ All Level IV ____
NPDES Level IV X

NPDES - 3138

Test America Version 12/20/07

CHAIN OF CUSTODY FORM

Client Name/Address:
MWH-Arcadia
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007

Test America Contact: Joseph Doak

Project Manager: Bronwyn Kelly

Sampler: Pollock

Project:
Boeing-SSFL NPDES
Routine Outfall 012
Alpha Test Stand

Phone Number:
(626) 568-6691
Fax Number:
(626) 568-6515

ANALYSIS REQUIRED

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Turbidity, TDS, TSS	Settleable Solids	624 (EDB, 1,2,3-TCP, MTBE, DIPE, TBA)	Total Recoverable Metals, Cd, Se, Zn, B, Cu, Pb, Hg	Total Dissolved Metals, Cd, Se, Zn, B, Cu, Pb, Hg	TCDD (and all congeners)						Comments
Outfall 012	W	500 ml Poly	2	2-6-09 13:10	None	11A, 11B	X											
Outfall 012	W	1L Poly	1		None	12		X											
Outfall 012	W	VOAs	1		HCl	13A			X										
Outfall 012 Dup	W	VOAs	2		HCl	13B, 13C			X										
Outfall 012	W	1L Poly	2		HNO_3	14A, 14B				X									
Outfall 012	W	1L Poly	1		None	15					X								Filter w/in 24hrs of receipt at lab
Outfall 012	W	1L Amber	2		None	16A, 16B						X							
Trip Blanks	W	VOAs	3		HCl	17A, 17B, 17C			X										

Relinquished By	Date/Time:	Received By	Date/Time:
	2-6-09 1545		2/6/09 1545
Relinquished By	Date/Time:	Received By	Date/Time:
	2/6/09 1820		
Relinquished By	Date/Time:	Received By	Date/Time:
			2/6/09 1820

Turn around Time: (check)
24 Hours _____ 5 Days _____
48 Hours _____ 10 Days _____
72 Hours _____ Normal ✓

Sample Integrity: (check)
Intact X On Ice: 4.0 / 3.4

Data Requirements: (check)
No Level IV ____ All Level IV ____

NPDES Level IV X

NPDES - 3139

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

MWH-Pasadena / Boeing

Lot D9B190123

Project ISB1803

Joseph Doak
17461 Derian Avenue
Suite 100
Irvine, CA 92614

TestAmerica Laboratories, Inc.

for DiLea Griego
Project Manager

February 25, 2009

Table of Contents

Standard Deliverables with Supporting Documentation

Report Contents	Number of Pages

Standard Deliverables

*(The **Cover Letter** and the **Report Cover** page are considered integral parts of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.)*

- **Table of Contents**
- **Case Narrative**
- **Executive Summary – Detection Highlights**
- **Methods Summary**
- **Method/Analyst Summary**
- **Lot Sample Summary**
- **Analytical Results**
- **QC Data Association Summary**
- **Chain-of-Custody**

Supporting Documentation

(Note: A one-page "Description of Supporting Documentation" is provided at the beginning of this section.).

	Check below when supporting documentation is present.
• Volatile GC/MS	
• Semivolatile GC/MS	
• Volatile GC	
• Semivolatile GC	
• LC/MS or HPLC	
• Metals	X
• General Chemistry	
• Subcontracted Data	

Quality Control Definitions of Qualifiers

Qualifier	Definition
U	Result is less than the method detection limit (MDL).
B	Organics: Method blank contamination. The associated method blank contains the target analyte at a reportable level. Inorganics: Estimated result. Result is less than the RL
J	Organics: Estimated result. Result is less than RL Inorganics: Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentrations exceed the calibration range.
p	Relative Percent Difference (RPD) is outside control limits.
*	Surrogate or Relative Percent Difference (RPD) is outside control limits.
DIL	The concentration is estimated or not reported due to dilution.
COL	More than 40% difference between the primary and confirmation detector results. The lower of the two results is reported.
CHI	More than 40% difference between the primary and confirmation detector results. The higher of the two results is reported.
L	Serial dilution of a digestate in the analytical batch indicates that physical and chemical interferences are present.
a	Spiked analyte recovery is outside stated control limits.
N	Spiked analyte recovery is outside stated control limits.
NC	The recovery and/or RPD were not calculated.
MSB	The recovery and/or RPD were not calculated because the sample amount was greater than four times the spike amount.

Case Narrative

Enclosed is the report for one sample received at TestAmerica Laboratories, Inc. – Denver laboratory on February 18, 2009. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than the Denver laboratory's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

Quality Control Summary for Lot D9B190123

Sample Receiving
The cooler temperature upon receipt at the laboratory was acceptable at 2.6°C.

Total Mercury –Method 245.1
MS/MSD (Matrix Spike/Matrix Spike Duplicate) analyses were performed on a sample from another client and/or lot. The MS/MSD for method 245.1 exhibited spike compound recoveries below the QC limits for Mercury. The acceptable LCS (Laboratory Control Sample) analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No anomalies were observed.

Dissolved Mercury –Method 245.1
No anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9B190123

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
NO DETECTABLE PARAMETERS				

METHODS SUMMARY

D9B190123

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Dissolved Mercury (CVAA)	MCAWW 245.1	MCAWW 245.1
Mercury (Manual Cold Vapor Technique)	MCAWW 245.1	MCAWW 245.1

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

METHOD / ANALYST SUMMARY

D9B190123

ANALYTICAL METHOD	ANALYST	ANALYST ID
MCAWW 245.1	Christopher Grisdale	9582

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

D9B190123

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
K7EH6	001	ISB1803-01	02/16/09	13:10

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

D9B190123

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	MCAWW 245.1		9050174	9050101
	WATER	MCAWW 245.1		9050182	9050105

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Total Metals

CLP-Like Forms

Lot ID: D9B190123

Client: TA Irvine

Method: 245.1

Associated Samples: -001

Batch: 9050174

Total Metals
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: TestAmerica Irvine SDG No.: D9B190123

Lab Code: _____ Case No.: _____ SAS No.: _____

SOW No.: _____

Sample ID.	Lab Sample No.
ISB1803-01	D9B190123-001

Were ICP interelement corrections applied?	Yes/No	YES
Were ICP background corrections applied?	Yes/No	YES
If yes-were raw data generated before application of background corrections?	Yes/No	NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Yongming Ding Name: Yongming Ding

Date: 2/24/2009 Title: Analyst V

COVER PAGE - IN

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	ISB1803-01
Lot/SDG Number:	D9B190123	**Lab Sample ID:**	D9B190123-001
Matrix:	WATER	**Lab WorkOrder:**	K7EH6
% Moisture:	N/A	**Date/Time Collected:**	02/16/09 13:10
Basis:	Wet	**Date/Time Received:**	02/18/09 10:15
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	02/19/09 13:30
QC Batch ID:	9050174	**Date/Time Analyzed:**	02/19/09 17:39
Sample Aliquot:	10 mL	**Instrument ID:**	023
Dilution Factor:	1		

CAS No.	Analyte	Conc.	MDL	RL	Q
7439-97-6	Mercury	0.027	0.027	0.20	U

Form 1 Analysis Data Sheet Equivalent

Total Metals
-2A-
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190123

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury	7.000	7.087	101.2	5.000	4.879	97.6	4.931	98.6	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals
-2A-
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190123

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Mercury				5.000	4.924	98.5			CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9B190123

AA CRDL Standard Source: Ultra Scientific

ICP CRDL Standard Source:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.200	0.19300	96.5					

Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9B190123	**Lab Sample ID:**	D9B190000-174B
Matrix:	WATER	**Lab WorkOrder:**	K7EN8
% Moisture:		**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	02/19/09 13:30
QC Batch ID:	9050174	**Date/Time Analyzed:**	02/19/09 17:16
Sample Aliquot:	10 mL	**Instrument ID:**	023
Dilution Factor:	1		

CAS No.	Analyte	Conc.	MDL	RL	Q
7439-97-6	Mercury	0.027	0.027	0.20	U

Total Metals

-3-

BLANKS

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190123

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Mercury	0.027	U	0.027	U	0.027	U	0.027	U	0.027	U	CV

Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	LAB MS/MSD
Lot/SDG Number:	D9B190123	**MS Lab Sample ID:**	D9B190119-001S
Matrix:	WATER	**MS Lab WorkOrder:**	K7EHT
% Moisture:	N/A	**Date/Time Collected:**	02/16/09 09:30
Basis:	Wet	**Date/Time Received:**	02/18/09 10:15
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	02/19/09 13:30
QC Batch ID:	9050174	**Date/Time Analyzed:**	02/19/09 17:23
MS Sample Aliquot:	10 mL	**Instrument ID:**	023
MS Dilution Factor:	1		

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Mercury	5.00	0.032	J	4.29		85	N	90 - 110

Form 5A MS Analysis Data Sheet Equivalent

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	LAB MS/MSD
Lot/SDG Number:	D9B190123	**MSD Lab Sample ID:**	D9B190119-001D
Matrix:	WATER	**MSD Lab WorkOrder:**	K7EHT
% Moisture:	N/A	**Date/Time Collected:**	02/16/09 09:30
Basis:	Wet	**Date/Time Received:**	02/18/09 10:15
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	02/19/09 13:30
QC Batch ID:	9050174	**Date/Time Analyzed:**	02/19/09 17:25
MSD Sample Aliquot:	10 mL	**Instrument ID:**	023
MSD Dilution Factor:	1		

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Mercury	5.00	0.032	J	4.29		85	N	0.0		90 - 110	10

Form 5A MSD Analysis Data Sheet Equivalent

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9B190123	**Lab Sample ID:**	D9B190000-174C
Matrix:	WATER	**Lab WorkOrder:**	K7EN8
% Moisture:	N/A	**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	02/19/09 13:30
QC Batch ID:	9050174	**Date/Time Analyzed:**	02/19/09 17:18
Sample Aliquot:	10 mL	**Instrument ID:**	023
Dilution Factor:	1		

Analyte	True	Found	%Rec	Q	Limits
Mercury	5.00	4.78	96		90 - 110

Form 7 LCS Analysis Data Sheet Equivalent

Total Metals

-10-

DETECTION LIMITS

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190123

ICP ID Number: _____ Date: 12/26/2008

Flame AA ID Number: Cetac M7500 Hg

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Mercury	253.70		0.20	0.027	CV

Comments: _____

Form X - IN

Total Metals

-13-

PREPARATION LOG

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190123

Method: CV Prep Method: _____

Sample ID	Preparation Date	Initial Volume	Final Volume(mL)
MB9050174	2/19/2009	10.0	10.0
Check Sample	2/19/2009	10.0	10.0
INTRA-LAB QC	2/19/2009	10.0	10.0
LAB MS	2/19/2009	10.0	10.0
LAB MSD	2/19/2009	10.0	10.0
ISB1803-01	2/19/2009	10.0	10.0

Comments:

Form XIII - IN

Total Metals
-14-

ANALYSIS RUN LOG

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9B190123

Instrument ID Number: Cetac M7500 Hg Method: CV

Start Date: 2/19/2009 End Date: 2/19/2009

Sample ID.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN			
Cal Blank	1.00	15:48																X												
Std1	1.00	15:50																X												
Std2	1.00	15:52																X												
Std3	1.00	15:54																X												
Std4	1.00	15:57																X												
Std5	1.00	15:59																X												
Std6	1.00	16:01																X												
ICB	1.00	16:04																X												
ICV	1.00	16:07																X												
RL	1.00	16:09																X												
CCV	1.00	17:02																X												
CCB	1.00	17:04																X												
ZZZZZZ	1.00	17:07																												
ZZZZZZ	1.00	17:09																												
ZZZZZZ	1.00	17:11																												
ZZZZZZ	1.00	17:14																												
MB9050174	1.00	17:16																X												
Check Sample	1.00	17:18																X												
INTRA-LAB QC	1.00	17:21																X												
LAB MS	1.00	17:23																X												
LAB MSD	1.00	17:25																X												
CCV	1.00	17:28																X												
CCB	1.00	17:30																X												
ZZZZZZ	1.00	17:32																												
ZZZZZZ	1.00	17:34																												
ZZZZZZ	1.00	17:37																												
ISB1803-01	1.00	17:39																X												
ZZZZZZ	1.00	17:41																												
ZZZZZZ	1.00	17:44																												
ZZZZZZ	1.00	17:46																												
ZZZZZZ	1.00	17:48																												
ZZZZZZ	1.00	17:51																												
CCV	1.00	17:53																X												

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Total Metals
-14-

ANALYSIS RUN LOG

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9B190123

Instrument ID Number: Cetac M7500 Hg Method: CV

Start Date: 2/19/2009 End Date: 2/19/2009

Sample ID.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCB	1.00	17:55																X									

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Dissolved Metals

CLP-Like Forms

Lot ID: D9B190123

Client: TA Irvine

Method: 245.1

Associated Samples: -001

Batch: 9050182

Dissolved Metals
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: TestAmerica Irvine SDG No.: D9B190123

Lab Code: _____ Case No.: _____ SAS No.: _____

SOW No.: _____

Sample ID.	Lab Sample No.
ISB1803-01	D9B190123-001

Were ICP interelement corrections applied?	Yes/No	YES
Were ICP background corrections applied?	Yes/No	YES
If yes-were raw data generated before application of background corrections?	Yes/No	NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Yongming Ding Name: Yongming Ding

Date: 2/24/2009 Title: Analyst V

COVER PAGE - IN

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Dissolved Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	ISB1803-01
Lot/SDG Number:	D9B190123	**Lab Sample ID:**	D9B190123-001
Matrix:	WATER	**Lab WorkOrder:**	K7EH6
% Moisture:	N/A	**Date/Time Collected:**	02/16/09 13:10
Basis:	Wet	**Date/Time Received:**	02/18/09 10:15
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	02/19/09 13:30
QC Batch ID:	9050182	**Date/Time Analyzed:**	02/19/09 16:34
Sample Aliquot:	10 mL	**Instrument ID:**	023
Dilution Factor:	1		

CAS No.	Analyte	Conc.	MDL	RL	Q
7439-97-6	Mercury	0.027	0.027	0.20	U

Form 1 Analysis Data Sheet Equivalent

Dissolved Metals
-2A-
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190123

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury	7.000	7.087	101.2	5.000	5.110	102.2	4.974	99.5	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Dissolved Metals
-2A-
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190123

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Mercury				5.000	5.127	102.5	5.097	101.9	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Dissolved Metals
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9B190123

AA CRDL Standard Source: Ultra Scientific

ICP CRDL Standard Source:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.200	0.19300	96.5					

Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Dissolved Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9B190123	**Lab Sample ID:**	D9B190000-182B
Matrix:	WATER	**Lab WorkOrder:**	K7EPP
% Moisture:		**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	02/19/09 13:30
QC Batch ID:	9050182	**Date/Time Analyzed:**	02/19/09 16:16
Sample Aliquot:	10 mL	**Instrument ID:**	023
Dilution Factor:	1		

CAS No.	Analyte	Conc.	MDL	RL	Q
7439-97-6	Mercury	0.027	0.027	0.20	U

Form 3 Prep Blank Equivalent

Dissolved Metals

-3-

BLANKS

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190123

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Mercury	0.027	U	0.027	U	0.027	U	0.027	U	0.027	U	CV

Comments:

Form III - IN

Dissolved Metals

-3-

BLANKS

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190123

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Mercury			0.027	U							CV

Comments:

Form III - IN

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Dissolved Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	LAB MS/MSD
Lot/SDG Number:	D9B190123	**MS Lab Sample ID:**	D9B190119-001S
Matrix:	WATER	**MS Lab WorkOrder:**	K7EHT
% Moisture:	N/A	**Date/Time Collected:**	02/16/09 09:30
Basis:	Wet	**Date/Time Received:**	02/18/09 10:15
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	02/19/09 13:30
QC Batch ID:	9050182	**Date/Time Analyzed:**	02/19/09 16:23
MS Sample Aliquot:	10 mL	**Instrument ID:**	023
MS Dilution Factor:	1		

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Mercury	5.00	0.030	J	4.57		91		90 - 110

Form 5A MS Analysis Data Sheet Equivalent

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Dissolved Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	LAB MS/MSD
Lot/SDG Number:	D9B190123	**MSD Lab Sample ID:**	D9B190119-001D
Matrix:	WATER	**MSD Lab WorkOrder:**	K7EHT
% Moisture:	N/A	**Date/Time Collected:**	02/16/09 09:30
Basis:	Wet	**Date/Time Received:**	02/18/09 10:15
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	02/19/09 13:30
QC Batch ID:	9050182	**Date/Time Analyzed:**	02/19/09 16:25
MSD Sample Aliquot:	10 mL	**Instrument ID:**	023
MSD Dilution Factor:	1		

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Mercury	5.00	0.030	J	4.55		90		0.37		90 - 110	10

Form 5A MSD Analysis Data Sheet Equivalent

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Dissolved Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9B190123	**Lab Sample ID:**	D9B190000-182C
Matrix:	WATER	**Lab WorkOrder:**	K7EPP
% Moisture:	N/A	**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	02/19/09 13:30
QC Batch ID:	9050182	**Date/Time Analyzed:**	02/19/09 20:18
Sample Aliquot:	10 mL	**Instrument ID:**	023
Dilution Factor:	1		

Analyte	True	Found	%Rec	Q	Limits
Mercury	5.00	4.63	93		90 - 110

Form 7 LCS Analysis Data Sheet Equivalent

Dissolved Metals

-10-

DETECTION LIMITS

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190123

ICP ID Number: _____ Date: 12/26/2008

Flame AA ID Number: Cetac M7500 Hg

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Mercury	253.70		0.20	0.027	CV

Comments: _____

Form X - IN

Dissolved Metals

-13-

PREPARATION LOG

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9B190123

Method: CV Prep Method: _____

Sample ID	Preparation Date	Initial Volume	Final Volume(mL)
MB9050182	2/19/2009	10.0	10.0
Check Sample	2/19/2009	10.0	10.0
INTRA-LAB QC	2/19/2009	10.0	10.0
LAB MS	2/19/2009	10.0	10.0
LAB MSD	2/19/2009	10.0	10.0
ISB1803-01	2/19/2009	10.0	10.0

Comments:

Dissolved Metals
-14-

ANALYSIS RUN LOG

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9B190123

Instrument ID Number: Cetac M7500 Hg Method: CV

Start Date: 2/19/2009 End Date: 2/19/2009

Sample ID.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
Cal Blank	1.00	15:48																X									
Std1	1.00	15:50																X									
Std2	1.00	15:52																X									
Std3	1.00	15:54																X									
Std4	1.00	15:57																X									
Std5	1.00	15:59																X									
Std6	1.00	16:01																X									
ICB	1.00	16:04																X									
ICV	1.00	16:07																X									
RL	1.00	16:09																X									
CCV	1.00	16:11																X									
CCB	1.00	16:14																X									
MB9050182	1.00	16:16																X									
ZZZZZZ	1.00	16:18																									
INTRA-LAB QC	1.00	16:21																X									
LAB MS	1.00	16:23																X									
LAB MSD	1.00	16:25																X									
ZZZZZZ	1.00	16:27																									
ZZZZZZ	1.00	16:30																									
ZZZZZZ	1.00	16:32																									
ISB1803-01	1.00	16:34																X									
CCV	1.00	16:37																X									
CCB	1.00	16:39																X									
CCV	1.00	20:14																X									
CCB	1.00	20:16																X									
Check Sample	1.00	20:18																X									
CCV	1.00	20:21																X									
CCB	1.00	20:23																X									

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

TestAmerica Denver

Sample Receiving Checklist

Lot #: D9B190123 Date/Time Received: 2/18/9 1015

Company Name & Sampling Site: Irvine

PM to Complete This Section:	*Yes*	*No*		*Yes*	*No*
Residual chlorine check required:	❑	❑	Quarantined :	❑	❑

Quote #: 12743

Special Instructions:

Time Zone:
• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): 1

Temperatures (°C): 2.6

N/A	*Yes*	*No*		*Initials*
❑	☑	❑	1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.	
	☑	❑	2. Coolers scanned for radiation. Is the reading ≤ to background levels? Yes: ✓ No:____	
	☑	❑	3. Chain of custody present? If no, document on CUR.	
	❑	☑	4. Bottles broken and/or are leaking? If yes, document on CUR.	
	❑	☑	5. Multiphasic samples obvious? If yes, document on CUR.	
	☑	❑	6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.	
❑	☑	❑	7. pH of all samples checked and meet requirements? If no, document on CUR.	
	☑	❑	8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.	
	☑	❑	9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.	
❑	❑	❑	10. Were VOA samples without headspace? If no, document on CUR.	
❑	❑	❑	11. Were VOA vials preserved? Preservative ❑HCl ❑4±2°C ❑Sodium Thiosulfate ❑ Ascorbic Acid	
	❑	☑	12. Did samples require preservation with sodium thiosulfate?	
❑	❑	❑	13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.	
❑	❑	❑	14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.	
❑	❑	❑	15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.	
	❑	☑	16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.	
	❑	☑	17. Are analyses with short holding times requested?	
	❑	☑	18. Was a quick Turn Around (TAT) requested?	

\QA\Edit\FORMS\Sample Receiving\Sample Receiving Checklist 9-2-08

TestAmerica Denver

Sample Receiving Checklist

Lot # MB190123

Login Checks:

Initials AL

N/A *Yes* *No*

- ☑ ☐ ☐ 19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- ☑ ☐ ☐ 20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- ☑ ☐ 21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- ☐ ☑ ☐ 22. Were special log in instructions read and followed?
- ☑ ☐ ☐ 23. Were AFCEE metals logged for refrigerated storage?
- ☑ ☐ 24. Were tests logged checked against the COC? Which samples were confirmed? All
- ☑ ☐ ☐ 25. Was a Rush form completed for quick TAT?
- ☑ ☐ ☐ 26. Was a Short Hold form completed for any short holds?
- ☐ ☑ 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials AL

- ☑ ☐ ☐ 28. Was the subcontract COC signed and sent with samples to bottle prep?
- ☑ ☐ 29. Were sample labels double-checked by a second person?
- ☑ ☐ ☐ 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
- ☑ ☐ 31. Did the sample ID, Date, and Time from label match what was logged?
- ☐ ☐ ☐ 32. Were stickers for special archiving instructions affixed to each box? See #27
- ☐ ☐ ☐ 33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

2.6
A6
IR1
2/18/9

SUBCONTRACT ORDER

TestAmerica Irvine

ISB1803

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak
Client: MWH-Pasadena/Boeing

RECEIVING LABORATORY:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone :(303) 736-0100
Fax: (303) 431-7171
Project Location: CA - CALIFORNIA
Receipt Temperature: _____ °C Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
Sample ID: ISB1803-01	**Water**		Sampled: **02/16/09 13:10**			
Level 4 Data Package - Out	N/A	02/25/09	03/16/09 13:10	$0.00	0%	Boeing
Mercury - 245.1, Diss -OUT	ug/l	02/25/09	03/16/09 13:10	$36.00	0%	Out to Denver Level 4 Boeing, permit, J flags
Mercury - 245.1-OUT	ug/l	02/25/09	03/16/09 13:10	$36.00	0%	Out to Denver Level 4 Boeing, permit, J flags

Containers Supplied:
1 L Poly w/HNO3 (AA) 125 mL Poly (AE)

Released By	Date/Time	Received By	Date/Time
[signature]	02-17-09 16:10	[signature]	2/18/9 1015

Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D9B190123

Client: TA - Irvine - Boeing

Batch(es) #: 9050182 + 9050174

Associated Samples: 1

I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.

Signature/Date: Christopher Grisdale 2/20/09

Metals Raw Data RoadMap

LotID		*Metal*	*WorkOrder*	*Anal Date*	*TestDesc*	*Batch*	*File Id*	*Instr*
D9B190123	1	HG	K7EH61AC	20090219	M2451DS	9050182	090219AA	023
D9B190123	1	HG	K7EH61AA	20090219	M2451_L	9050174	090219AA	023

Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D9B190121

Client: TA - Irvine - Boeing

Batch(es) #: 9050182 + 9050174

Associated Samples: 1

I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.

Signature/Date: Christopher Grisdale 2/20/09

Metals Raw Data RoadMap

LotID		*Metal*	*WorkOrder*	*Anal Date*	*TestDesc*	*Batch*	*File Id*	*Instr*
D9B190121	1	HG	K7EH51AC	20090219	M2451DS	9050182	090219AA	023
D9B190121	1	HG	K7EH51AA	20090219	M2451_L	9050174	090219AA	023

METALS
PREPARATION LOGS
CVAA

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

SUPPLEMENTAL METALS PREP SHEET

(Used in conjunction with METALS PREP LOG/BATCH SUMMARY)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

Hg PREP & ANALYSIS - WATERS

SOP: DEN-MT-0015 QC Batch #: 9050182

Prep Date: 02/19/09	Prep By: CGG	Analysis Date: 02/19/09	Analyst: CGG
Balance ID: H53865		***Thermometer ID:*** MT 4025	

Digestion Cycles	Start Time	Temp °C	End Time	Temp °C
	13:30	93	15:30	93

Purple color persists or black ppt present: [X] Yes [ ] No If "No", explain in Comments below.

Digestion Tube Lot # :

For dissolved mercury only, were samples filtered in the lab? [ ] Yes [X] No

One or more samples were filtered prior to analysis at the instrument. [ ] Yes [X] No

If "yes", then the method blank and the LCS were also filtered in the same manner using the same type of filter.

Analyst(s) Initials:

Reagents Used

Reagent	Manufacturer	Lot #	Standards Log #	Vol (mL)
HNO_3	JT Baker	G25032		0.25
H_2SO_4	Fisher	E49F06		0.5
HCl	JT Baker	G36024		used by instrument
10% $SnCl_2$	Fisher	G20637	STD-1027-09	added by instrument
NaCl / NH_2OH	Fisher	G28617	STD-1026-09	0.6
	Fisher	G06476		
$KMnO_4$	Fisher	G10662	STD-0920-09	1.5
$K_2S_2O_8$	Fisher	083661	STD-0351-09	0.8

Parent Calibration Stock Standards

	Lot #	Verification #	Exp. Date
Second Source	A2-HG02056	STD-2364-08	06/01/09
Primary Calibration	H00091	STD-1683-08	05/01/09

Standards Preparation **Final digestate volume = 10 mls**

Standards	Final Conc	Parent Standard	Standards Log #	Vol (mL)	Pipette
Cal Working	10 mg/L	Primary Cal	See Attached Standards Log Printouts	1.00	7
Daily Cal Working	100 ug/L	Cal Working		1.00	7
ICAL 0.2	0.2 ug/L	Daily Cal Working		0.2	7
ICAL 0.5	0.5 ug/L	Daily Cal Working		0.5	7
ICAL 1	1.0 ug/L	Daily Cal Working		1.0	7
ICAL 2	2.0 ug/L	Daily Cal Working		2.0	7
ICAL 5	5.0 ug/L	Daily Cal Working		5.0	24
ICAL 10	10 ug/L	Daily Cal Working		10.0	24
CCV	5 ug/L	Daily Cal Working		5.0	7
ICV Intermed	700 ug/L	ICV Stock		0.70	7
ICV Daily Working	7.0 ug/L	ICV Intermed		1.00	7
LCS	5 ug/L	Daily Cal Working		0.5	7
MS/MSD	5 ug/L	Daily Cal Working		0.5	7
RL	0.2 ug/L	Daily Cal Working		0.2	7

Second Source ICV Intermediate Stock Standard Prep **Standards Log #:** STD-0993-09

NOTE: Details for each reagent & standard prep are documented in the attached Standards Preparation Logbook Record.

Comments Dissolved - 245.1 - Boeing

I certify that all information above is correct and complete.

Signature: Cris Grisdale ***Date:*** 2/20/09

REVIEWED BY: [signature] **Date:** 2/20/09

Batch Number: **9050182**

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By: CJ

Prep Date: 02/19/09 CJ
Due Date: 02/24/09

Lot	Work Order			Initial Weight/Volume
D9B190000 Water	**K7EPP**	B 1	Due Date: SDG:	10 mL
D9B190000 Water	**K7EPP**	C 2	Due Date: SDG:	10 mL
D9B190119 Water	**K7EHT** Dissolved	3	Due Date: 02/24/09 SDG:	10 mL
D9B190119 Water	**K7EHT** Dissolved	S 4	Due Date: 02/24/09 SDG:	10 mL
D9B190119 Water	**K7EHT** Dissolved	D 5	Due Date: 02/24/09 SDG:	10 mL
D9B190121 Water	**K7EH5** Dissolved	6	Due Date: 02/24/09 SDG:	10 mL
D9B190123 Water	**K7EH6** Dissolved	7	Due Date: 02/24/09 SDG:	10 mL
D9B190125 Water	**K7EJJ** Dissolved	8	Due Date: 02/24/09 SDG:	10 mL
D9B190126 Water	**K7EJ6** Dissolved	9	Due Date: 02/24/09 SDG:	10 mL
D9B190127 Water	**K7EJ8** Dissolved	10	Due Date: 02/24/09 SDG:	10 mL
D9B190128 Water	**K7EJ9** Dissolved	11	Due Date: 02/24/09 SDG:	10 mL
D9B190129 Water	**K7EKA** Dissolved	12	Due Date: 02/24/09 SDG:	10 mL
D9B190130 Water	**K7EKD** Dissolved	13	Due Date: 02/24/09 SDG:	10 mL
D9B190131 Water	**K7EKE** Dissolved	14	Due Date: 02/24/09 SDG:	10 mL
D9B190132 Water	**K7EKK** Dissolved	15	Due Date: 02/24/09 SDG:	10 mL
D9B190133 Water	**K7EKJ** Dissolved	16	Due Date: 02/24/09 SDG:	10 mL
D9B190134 Water	**K7EKN** Dissolved	17	Due Date: 02/24/09 SDG:	10 mL
D9B190135 Water	**K7EKM** Dissolved	18	Due Date: 02/24/09 SDG:	10 mL
D9B190137 Water	**K7EKW** Dissolved	19	Due Date: 02/24/09 SDG:	10 mL
D9B190138 Water	**K7EKX** Dissolved	20	Due Date: 02/24/09 SDG:	10 mL

✓ 2/20/09

Batch Number: **9050182**

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By: CD

Prep Date: 02/19/09 CD
Due Date: 02/24/09

Lot	Work Order	Initial Weight/Volume

Comments:

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

SUPPLEMENTAL METALS PREP SHEET

(Used in conjunction with METALS PREP LOG/BATCH SUMMARY)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

Hg PREP & ANALYSIS - WATERS

SOP: DEN-MT-0015 QC Batch #: 9050174

Prep Date: 02/19/09	Prep By: CGG	Analysis Date: 02/19/09	Analyst: CGG
Balance ID: H53865		***Thermometer ID:*** MT 4025	

Digestion Cycles	Start Time	Temp °C	End Time	Temp °C
	13:30	93	15:30	93

Purple color persists or black ppt present: [X] Yes [ ] No If "No", explain in Comments below.

Digestion Tube Lot # :

For dissolved mercury only, were samples filtered in the lab? [ ] Yes [X] No

One or more samples were filtered prior to analysis at the instrument. [X] Yes [ ] No

If "yes", then the method blank and the LCS were also filtered in the same manner using the same type of filter.

Analyst(s) Initials: CG

Reagents Used

Reagent	Manufacturer	Lot #	Standards Log #	Vol (mL)
HNO_3	JT Baker	G25032		0.25
H_2SO_4	Fisher	E49F06		0.5
HCl	JT Baker	G36024		used by instrument
10% $SnCl_2$	Fisher	G20637	STD-1027-09	added by instrument
NaCl / NH_2OH	Fisher	G28617	STD-1026-09	0.6
	Fisher	G06476		
$KMnO_4$	Fisher	G10662	STD-0920-09	1.5
$K_2S_2O_8$	Fisher	083661	STD-0351-09	0.8

Parent Calibration Stock Standards

	Lot #	Verification #	Exp. Date
Second Source	A2-HG02056	STD-2364-08	06/01/09
Primary Calibration	H00091	STD-1683-08	05/01/09

Standards Preparation **Final digestate volume = 10 mls**

Standards	Final Conc	Parent Standard	Standards Log #	Vol (mL)	Pipette
Cal Working	10 mg/L	Primary Cal	See Attached Standards Log Printouts	1.00	7
Daily Cal Working	100 ug/L	Cal Working		1.00	7
ICAL 0.2	0.2 ug/L	Daily Cal Working		0.2	7
ICAL 0.5	0.5 ug/L	Daily Cal Working		0.5	7
ICAL 1	1.0 ug/L	Daily Cal Working		1.0	7
ICAL 2	2.0 ug/L	Daily Cal Working		2.0	7
ICAL 5	5.0 ug/L	Daily Cal Working		5.0	24
ICAL 10	10 ug/L	Daily Cal Working		10.0	24
CCV	5 ug/L	Daily Cal Working		5.0	7
ICV Intermed	700 ug/L	ICV Stock		0.70	7
ICV Daily Working	7.0 ug/L	ICV Intermed		1.00	7
LCS	5 ug/L	Daily Cal Working		0.5	7
MS/MSD	5 ug/L	Daily Cal Working		0.5	7
RL	0.2 ug/L	Daily Cal Working		0.2	7

Second Source ICV Intermediate Stock Standard Prep **Standards Log #:** STD-0993-09

NOTE: Details for each reagent & standard prep are documented in the attached Standards Preparation Logbook Record.

Comments Total - 245.1 - Boeing

I certify that all information above is correct and complete.

Signature: Chris Grisdale ***Date:*** 2/20/09

REVIEWED BY: [illegible] **Date:** 2/20/09

Batch Number: **9050174**

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By: CD

Prep Date: 02/19/09 CD
Due Date: 02/24/09

Lot	Work Order			Initial Weight/Volume
D9B190000 Water	**K7EN8**	B 1	Due Date: SDG:	10 mL
D9B190000 Water	**K7EN8**	C 2	Due Date: SDG:	10 mL
D9B190119 Water	**K7EHT** Total	3	Due Date: 02/24/09 SDG:	10 mL
D9B190119 Water	**K7EHT** Total	S 4	Due Date: 02/24/09 SDG:	10 mL
D9B190119 Water	**K7EHT** Total	D 5	Due Date: 02/24/09 SDG:	10 mL
D9B190121 Water	**K7EH5** Total	6	Due Date: 02/24/09 SDG:	10 mL
D9B190123 Water	**K7EH6** Total	7	Due Date: 02/24/09 SDG:	10 mL
D9B190125 Water	**K7EJJ** Total	8	Due Date: 02/24/09 SDG:	10 mL
D9B190126 Water	**K7EJ6** Total	9	Due Date: 02/24/09 SDG:	10 mL
D9B190127 Water	**K7EJ8** Total	10	Due Date: 02/24/09 SDG:	10 mL
D9B190128 Water	**K7EJ9** Total	11	Due Date: 02/24/09 SDG:	10 mL
D9B190129 Water	**K7EKA** Total	12	Due Date: 02/24/09 SDG:	10 mL
D9B190130 Water	**K7EKD** Total	13	Due Date: 02/24/09 SDG:	MA, 10 mL
~~D9B190131~~ Water	~~**K7EKE**~~ Total	14	Due Date: 02/24/09 SDG:	No total Vol. Received CD 2/18/09 10 mL
D9B190132 Water	**K7EKK** Total	15	Due Date: 02/24/09 SDG:	10 mL
D9B190133 Water	**K7EKJ** Total	16	Due Date: 02/24/09 SDG:	10 mL
D9B190134 Water	**K7EKN** Total	17	Due Date: 02/24/09 SDG:	10 mL
D9B190135 Water	**K7EKM** Total	18	Due Date: 02/24/09 SDG:	10 mL
D9B190137 Water	**K7EKW** Total	19	Due Date: 02/24/09 SDG:	10 mL
D9B190138 Water	**K7EKX** Total	20	Due Date: 02/24/09 SDG:	10 mL

✓

2/20/09

Batch Number: **9050174**

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By: CS

Prep Date: 02/19/09 CS

Due Date: 02/24/09

Lot	Work Order	Initial Weight/Volume

Comments:

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

METALS
SAMPLE DATA
CVAA

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Denver

Standards Preparation Logbook Record

Feb-20-2009

Logbook: \\Densvr06\StdsLog\metals.std

STD1683-08, 1000 mg/L Hg Calibration Stock Standard (Ultra)

Analyst: grisdalec

Vendor: Ultra Scientific (Metals) Lot No.: H00091 Vendor's Expiration Date: 05-01-2009
Solvent: 2% HN03
Date Prep./Opened: 04-03-2008 Date Received: 03-31-2008
Date Expires(1): 04-03-2009 (1 Year)
Date Expires(2): 05-01-2009 (None)
Date Verified: 12-31--4714 by 0 (Verification ID: -)

Component	Initial Conc (%)	Final Conc (%)
Mercuric Nitrate	100.00	100.00

STD2364-08, Hg Inorganic Ventures ICV 100ppm Std

Analyst: grisdalec

Vendor: Inorganic Ventures Lot No.: A2-HG02056 Vendor's Expiration Date: 06-01-2009
Solvent: 3.3%HCl
Date Prep./Opened: 05-01-2008 Date Received: 05-02-2007
Date Expires(1): 05-01-2009 (1 Year)
Date Expires(2): 06-01-2009 (None)
Date Verified: 12-31--4714 by 0 (Verification ID: -)

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Hg	100.00	100.00

STD0437-09, 10 mg/L Hg Calibration Std

Analyst: wellsd

Solvent: 1% HN03 Lot No.: G02058 Volume (ml): 100.00
Date Prep./Opened: 01-26-2009
Date Expires(1): 02-26-2009 (1 Month)
Date Expires(2): 02-26-2009 (1 Month)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD1683-08, 1000 mg/L Hg Calibration Stock Standard (Ultra) Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 04-03-2009 Parent Date Expires(2): 05-01-2009

Component	Initial Conc (%)	Final Conc (mg/L)
Mercuric Nitrate	100.00	10,000

STD0993-09, Hg Inorganic Ventures ICV 700ppb — Analyst: GRISDALEC

Solvent: 1% HNO3 Lot No.: G02058 Volume (ml): 100.00
Date Prep./Opened: 02-18-2009
Date Expires(1): 03-04-2009 (2 Weeks)
Date Expires(2): 06-01-2009 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD2364-08, Hg Inorganic Ventures ICV 100ppm Std Aliquot Amount (ml): 0.7000
Parent Date Expires(1): 05-01-2009 Parent Date Expires(2): 06-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Hg	100.00	700.00

STD1017-09, 100 ppb Hg Calibration Std — Analyst: GRISDALEC

Solvent: 1% HN03 Lot No.: G17027 Volume (ml): 100.00
Date Prep./Opened: 02-19-2009
Date Expires(1): 02-20-2009 (1 Day)
Date Expires(2): 05-01-2009 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD0437-09, 10 mg/L Hg Calibration Std Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 02-26-2009 Parent Date Expires(2): 02-26-2009

Component	Initial Conc (mg/L)	Final Conc (ug/ml)
Mercuric Nitrate	10,000	100.00

STD1018-09, Blank Daily Hg Calibration Std — Analyst: GRISDALEC

Vendor: Baker Lot No.: G17027
Solvent: 1% HN03
Date Prep./Opened: 02-19-2009
Date Expires(1): 08-19-2009 (6 Months)
Date Expires(2): 02-19-2010 (1 Year)
Date Verified: 12-31--4714 by 0 (Verification ID: -)

Component	Initial Conc (%)	Final Conc (%)
Nitric Acid	1.0000	1.0000

STD1019-09, 0.2 ppb Daily Hg Calibration Std — Analyst: GRISDALEC

Solvent: 1% HN03 Lot No.: G17027 Volume (ml): 100.00
Date Prep./Opened: 02-19-2009
Date Expires(1): 02-20-2009 (1 Day)
Date Expires(2): 05-01-2009 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD1017-09, 100 ppb Hg Calibration Std Aliquot Amount (ml): 0.2000
Parent Date Expires(1): 02-20-2009 Parent Date Expires(2): 05-01-2009

Component	Initial Conc (ug/ml)	Final Conc (ug/ml)
Mercuric Nitrate	100.00	0.2000

STD1020-09, 0.5 ppb Daily Hg Calibration Std

Analyst: GRISDALEC

Solvent: 1% HN03 Lot No.: G17027 Volume (ml): 100.00
Date Prep./Opened: 02-19-2009
Date Expires(1): 02-20-2009 (1 Day)
Date Expires(2): 05-01-2009 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD1017-09, 100 ppb Hg Calibration Std Aliquot Amount (ml): 0.5000
Parent Date Expires(1): 02-20-2009 Parent Date Expires(2): 05-01-2009

Component	Initial Conc (ug/ml)	Final Conc (ug/ml)
Mercuric Nitrate	100.00	0.5000

STD1021-09, 1.0 ppb Daily Hg Calibration Std

Analyst: GRISDALEC

Solvent: 1% HN03 Lot No.: G17027 Volume (ml): 100.00
Date Prep./Opened: 02-19-2009
Date Expires(1): 02-20-2009 (1 Day)
Date Expires(2): 05-01-2009 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD1017-09, 100 ppb Hg Calibration Std Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 02-20-2009 Parent Date Expires(2): 05-01-2009

Component	Initial Conc (ug/ml)	Final Conc (ug/ml)
Mercuric Nitrate	100.00	1.0000

STD1022-09, 2.0 ppb Daily Hg Calibration Std

Analyst: GRISDALEC

Solvent: 1% HN03 Lot No.: G17027 Volume (ml): 100.00
Date Prep./Opened: 02-19-2009
Date Expires(1): 02-20-2009 (1 Day)
Date Expires(2): 05-01-2009 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD1017-09, 100 ppb Hg Calibration Std Aliquot Amount (ml): 2.0000
Parent Date Expires(1): 02-20-2009 Parent Date Expires(2): 05-01-2009

Component	Initial Conc (ug/ml)	Final Conc (ug/ml)
Mercuric Nitrate	100.00	2.0000

STD1023-09, 5.0 ppb Daily Hg Calibration Std

Analyst: GRISDALEC

Solvent: 1% HN03 Lot No.: G17027 Volume (ml): 100.00
Date Prep./Opened: 02-19-2009
Date Expires(1): 02-20-2009 (1 Day)
Date Expires(2): 05-01-2009 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD1017-09, 100 ppb Hg Calibration Std Aliquot Amount (ml): 5.0000
Parent Date Expires(1): 02-20-2009 Parent Date Expires(2): 05-01-2009

Component	Initial Conc (ug/ml)	Final Conc (ug/ml)
Mercuric Nitrate	100.00	5.0000

STD1024-09, 10.0 ppb Daily Hg Calibration Std

Analyst: GRISDALEC

Solvent: 1% HN03 Lot No.: G17027 Volume (ml): 100.00
Date Prep./Opened: 02-19-2009 Date Consumed: 12-06-2006
Date Expires(1): 02-20-2009 (1 Day)
Date Expires(2): 05-01-2009 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD1017-09, 100 ppb Hg Calibration Std Aliquot Amount (ml): 10.000
Parent Date Expires(1): 02-20-2009 Parent Date Expires(2): 05-01-2009

Component	Initial Conc (ug/ml)	Final Conc (ug/ml)
Mercuric Nitrate	100.00	10.000

STD1025-09, Hg Daily ICV 7ppb Calibration Std

Analyst: GRISDALEC

Solvent: 1% HNO3 Lot No.: G17027 Volume (ml): 100.00
Date Prep./Opened: 02-19-2009
Date Expires(1): 02-20-2009 (1 Day)
Date Expires(2): 06-01-2009 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD0993-09, Hg Inorganic Ventures ICV 700ppb Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 03-04-2009 Parent Date Expires(2): 06-01-2009

Component	Initial Conc (ug/L)	Final Conc (ug/L)
Hg	700.00	7.0000

Reviewed By: Christopher Grisdale 2/20/09

Denver

RUN SUMMARY

Method: CVHG - Mercury (Cold Vapor Mercury) | Instrument: A (023) | Reported: 02/20/09 07:53:42

Sequence: 090219AA **Date:** 02/19/09 15:48 **Analyst:** CGG **ICV:** _____ **CAL/CCV:** _____

#	Sample ID	Lot No.	Batch	Matrix	Raw	DF	Result	Units	%R	Analyzed Date	Comment	Q
1	Cal Blank				0.00	1.0	0.00	ppb		02/19/09 15:48		☐
2	Std1	= 0.200			0.20	1.0	0.20	ppb	100.0%	02/19/09 15:50		☐
3	Std2	= 0.500			0.50	1.0	0.50	ppb	100.0%	02/19/09 15:52		☐
4	Std3	= 1.00			1.00	1.0	1.00	ppb	100.0%	02/19/09 15:54		☐
5	Std4	= 2.00			2.00	1.0	2.00	ppb	100.0%	02/19/09 15:57		☐
6	Std5	= 5.00			5.00	1.0	5.00	ppb	100.0%	02/19/09 15:59		☐
7	Std6	= 10.0			10.00	1.0	10.00	ppb	100.0%	02/19/09 16:01		☐
8	ICB				-0.00	1.0	-0.00	ppb		02/19/09 16:04		☐
9	ICV	= 7.00			7.09	1.0	7.09	ppb	101.2%	02/19/09 16:07		☐
10	RL	= 0.200			0.19	1.0	0.19	ppb		02/19/09 16:09		☐
11	CCV	= 5.00			5.11	1.0	5.11	ppb	102.2%	02/19/09 16:11		☐
12	CCB				0.00	1.0	0.00	ppb		02/19/09 16:14		☐
13	K7EPPBF	D9B190000	9050182		0.00	1.0	0.00	ppb		02/19/09 16:16		☐
~~14~~	~~K7EPPCF~~	~~D9B190000 = 5.00~~	~~9050182~~		~~4.37~~	~~1.0~~	~~4.37~~	~~ppb~~	~~87.5%~~	~~02/19/09 16:18~~	NA Bad read, see Rerun later. cs 2/20/09	☐
15	K7EHTF	D9B190119-1	9050182	AQUEOUS	0.03	1.0	0.03	ppb		02/19/09 16:21		☐
16	K7EHTSF	D9B190119-1 = 5.00	9050182	AQUEOUS	4.57	1.0	4.57	ppb		02/19/09 16:23		☐
17	K7EHTDF	D9B190119-1 = 5.00	9050182	AQUEOUS	4.55	1.0	4.55	ppb		02/19/09 16:25		☐
~~18~~	~~K7EHTSE~~	~~D9B190119-1 = 5.00~~	~~9050182~~	~~AQUEOUS~~	~~4.65~~	~~1.0~~	~~4.65~~	~~ppb~~		~~02/19/09 16:27~~		☐
~~19~~	~~K7EHTDF~~	~~D9B190119-1 = 5.00~~	~~9050182~~	~~AQUEOUS~~	~~4.65~~	~~1.0~~	~~4.65~~	~~ppb~~		~~02/19/09 16:30~~	NA Confirms above cs 2/20/09	☐
20	K7EH5F	D9B190121-1	9050182	AQUEOUS	0.02	1.0	0.02	ppb		02/19/09 16:32		☐
21	K7EH6F	D9B190123-1	9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 16:34		☐
22	CCV	= 5.00			4.97	1.0	4.97	ppb	99.5%	02/19/09 16:37		☐
23	CCB				0.00	1.0	0.00	ppb		02/19/09 16:39		☐
24	K7EJJF	D9B190125-1	9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 16:41		☐
25	K7EJ6F	D9B190126-1	9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 16:44		☐
26	K7EJ8F	D9B190127-1	9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 16:46		☐
27	K7EJ9F	D9B190128-1	9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 16:48		☐
28	K7EKAF	D9B190129-1	9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 16:51		☐
29	K7EKDF	D9B190130-1	9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 16:53		☐
30	K7EKEF	D9B190131-1	9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 16:55		☐
31	K7EKKF	D9B190132-1	9050182	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 16:57		☐
32	K7EKJ	D9B190133-1	~~9050174~~ 9050182	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 17:00		☐
33	CCV	= 5.00			4.88	1.0	4.88	ppb	97.6%	02/19/09 17:02		☐
34	CCB				-0.00	1.0	-0.00	ppb		02/19/09 17:04		☐

cs 2/20/09

cs 2/20/09

Denver

RUN SUMMARY

Method: CVHG - Mercury (Cold Vapor Mercury) | Instrument: A (023) | Reported: 02/20/09 07:53:42

Sequence: 090219AA **Date:** 02/19/09 15:48 **Analyst:** CGG **ICV:** _____ **CAL/CCV:** _____

#	Sample ID	Lot No.	Batch	Matrix	Raw	DF	Result	Units	%R	Analyzed Date	Comment	Q
35	K7EKNF	D9B190134-1	9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 17:07		☐
36	K7EKMF	D9B190135-1	9050182	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 17:09		☐
37	K7EKWF	D9B190137-1	9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 17:11		☐
38	K7EKXF	D9B190138-1	9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 17:14		☐
39	K7EN8B	D9B190000	9050174		0.00	1.0	0.00	ppb		02/19/09 17:16		☐
40	K7EN8C	D9B190000 = 5.00	9050174		4.78	1.0	4.78	ppb	95.6%	02/19/09 17:18		☐
41	K7EHT	D9B190119-1	9050174	AQUEOUS	0.03	1.0	0.03	ppb		02/19/09 17:21		☐
42	K7EHTS	D9B190119-1 = 5.00	9050174	AQUEOUS	4.29	1.0	4.29	ppb		02/19/09 17:23		☐
43	K7EHTD	D9B190119-1 = 5.00	9050174	AQUEOUS	4.29	1.0	4.29	ppb		02/19/09 17:25		☐
44	CCV	= 5.00			4.93	1.0	4.93	ppb	98.6%	02/19/09 17:28		☐
45	CCB				-0.00	1.0	-0.00	ppb		02/19/09 17:30		☐
~~46~~	~~K7EHTS~~	~~D9B190119-1 = 5.00~~	~~9050174~~	~~AQUEOUS~~	~~4.25~~	~~1.0~~	~~4.25~~	~~ppb~~		~~02/19/09 17:32~~	NA confirms above MS/MSD low.	☐
~~47~~	~~K7EHTD~~	~~D9B190119-1 = 5.00~~	~~9050174~~	~~AQUEOUS~~	~~4.29~~	~~1.0~~	~~4.29~~	~~ppb~~		~~02/19/09 17:34~~		☐
48	K7EH5	D9B190121-1	9050174	AQUEOUS	0.04	1.0	0.04	ppb		02/19/09 17:37		☐
49	K7EH6	D9B190123-1	9050174	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 17:39		☐
50	K7EJJ	D9B190125-1	9050174	AQUEOUS	0.05	1.0	0.05	ppb		02/19/09 17:41		☐
51	K7EJ6	D9B190126-1	9050174	AQUEOUS	0.04	1.0	0.04	ppb		02/19/09 17:44		☐
52	K7EJ8	D9B190127-1	9050174	AQUEOUS	0.02	1.0	0.02	ppb		02/19/09 17:46		☐
53	K7EJ9	D9B190128-1	9050174	AQUEOUS	0.05	1.0	0.05	ppb		02/19/09 17:48		☐
54	K7EKA	D9B190129-1	9050174	AQUEOUS	0.05	1.0	0.05	ppb		02/19/09 17:51		☐
55	CCV	= 5.00			4.92	1.0	4.92	ppb	98.5%	02/19/09 17:53		☐
56	CCB				-0.00	1.0	-0.00	ppb		02/19/09 17:55		☐
57	K7EKD	D9B190130-1	9050174	AQUEOUS	0.03	1.0	0.03	ppb		02/19/09 17:57		☐
58	K7EKK	D9B190132-1	9050174	AQUEOUS	0.11	1.0	0.11	ppb		02/19/09 18:00		☐
59	K7EKJ	D9B190133-1	9050174	AQUEOUS	0.03	1.0	0.03	ppb		02/19/09 18:02		☐
60	K7EKN	D9B190134-1	9050174	AQUEOUS	0.02	1.0	0.02	ppb		02/19/09 18:04		☐
61	K7EKM	D9B190135-1	9050174	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 18:07		☐
62	K7EKW	D9B190137-1	9050174	AQUEOUS	0.07	1.0	0.07	ppb		02/19/09 18:09		☐
63	K7EKX	D9B190138-1	9050174	AQUEOUS	0.03	1.0	0.03	ppb		02/19/09 18:11		☐
64	K7EN3B	D9B190000	9050173		-0.00	1.0	-0.00	ppb		02/19/09 18:14		☐
65	K7EN3C	D9B190000 = 5.00	9050173		4.83	1.0	4.83	ppb	96.6%	02/19/09 18:16		☐
66	CCV	= 5.00			4.96	1.0	4.96	ppb	99.3%	02/19/09 18:18		☐
67	CCB				-0.00	1.0	-0.00	ppb		02/19/09 18:20		☐
68	K7DXC	D9B180282-1	9050173	AQUEOUS	0.16	1.0	0.16	ppb		02/19/09 18:23		☐

JCJ 2/20/09

Denver

RUN SUMMARY

Method: CVHG - Mercury (Cold Vapor Mercury) | Instrument: A (023) | Reported: 02/20/09 07:53:42

Sequence: 090219AA **Date:** 02/19/09 15:48 **Analyst:** CGG **ICV:** _____ **CAL/CCV:** _____

#	Sample ID	Lot No.	Batch	Matrix	Raw	DF	Result	Units	%R	Analyzed Date	Comment	Q
69	K7DXCS	D9B180282-1 = 5.00	9050173	AQUEOUS	4.55	1.0	4.55	ppb		02/19/09 18:25		☐
70	K7DXCD	D9B180282-1 = 5.00	9050173	AQUEOUS	4.91	1.0	4.91	ppb		02/19/09 18:27		☐
71	K7EF3	D9B190114-1	9050173	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 18:30		☐
72	K7EGE	D9B190114-3	9050173	AQUEOUS	0.09	1.0	0.09	ppb		02/19/09 18:32		☐
73	K7EGM	D9B190114-5	9050173	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 18:34		☐
74	K7EGQ	D9B190114-7	9050173	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 18:37		☐
75	K7EG3	D9B190114-9	9050173	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 18:39		☐
76	K7EHD	D9B190114-11	9050173	AQUEOUS	0.80	1.0	0.80	ppb		02/19/09 18:41		☐
77	CCV	= 5.00			4.97	1.0	4.97	ppb	99.4%	02/19/09 18:44		☐
78	CCB				0.00	1.0	0.00	ppb		02/19/09 18:46		☐
79	K7D19BT	D9B180000	9050172		0.00	1.0	0.00	ppb		02/19/09 18:48		☐
80	K7ENVCT	D9B190000 = 5.00	9050172		4.92	1.0	4.92	ppb	98.4%	02/19/09 18:50		☐
81	K7A6XT	D9B170257-1	9050172	LEACHATE	0.05	1.0	0.05	ppb		02/19/09 18:53		☐
82	K7A6XP5T	D9B170257	9050172	LEACHATE	0.01	5.0	0.01	ppb		02/19/09 18:55		☐
83	K7A6XST	D9B170257-1 = 5.00	9050172	LEACHATE	4.78	1.0	4.78	ppb		02/19/09 18:57		☐
84	K7A6XDT	D9B170257-1 = 5.00	9050172	LEACHATE	4.19	1.0	4.19	ppb		02/19/09 19:00		☐
85	K7D2VBT	D9B180000	9050170		0.00	1.0	0.01	ppb		02/19/09 19:02		☐
86	K7ENRCT	D9B190000 = 5.00	9050170		4.98	1.0	4.98	ppb	99.5%	02/19/09 19:04		☐
87	K7A62T	D9B170257-2	9050170	LEACHATE	0.00	1.0	0.00	ppb		02/19/09 19:07		☐
88	CCV	= 5.00			5.10	1.0	5.10	ppb	101.9%	02/19/09 19:09		☐
89	CCB				-0.00	1.0	-0.00	ppb		02/19/09 19:11		☐
90	K7A62P5T	D9B170257	9050170	LEACHATE	0.00	5.0	0.01	ppb		02/19/09 19:14		☐
91	K7A62ST	D9B170257-2 = 5.00	9050170	LEACHATE	5.27	1.0	5.27	ppb		02/19/09 19:16		☐
92	K7A62DT	D9B170257-2 = 5.00	9050170	LEACHATE	4.85	1.0	4.85	ppb		02/19/09 19:18		☐
93	K7EPWBF	D9B190000	9050183		-0.00	1.0	-0.00	ppb		02/19/09 19:21		☐
94	K7EPWCF	D9B190000 = 5.00	9050183		5.06	1.0	5.06	ppb	101.3%	02/19/09 19:23		☐
95	K7D51			AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 19:25		☐
96	K7D51SF	D9B180302-2 = 5.00	9050183	AQUEOUS	5.21	1.0	5.21	ppb		02/19/09 19:27		☐
97	K7D51DF	D9B180302-2 = 5.00	9050183	AQUEOUS	5.06	1.0	5.06	ppb		02/19/09 19:30		☐
98	K7D55F	D9B180302-4	9050183	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 19:32		☐
99	CCV	= 5.00			5.10	1.0	5.10	ppb	101.9%	02/19/09 19:34		☐
100	CCB				0.00	1.0	0.00	ppb		02/19/09 19:37		☐
101	K7D57F	D9B180302-6	9050183	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 19:39		☐
102	K7D59F	D9B180302-8	9050183	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 19:41		☐

JCS 2/20/09

Denver

RUN SUMMARY

Method: CVHG - Mercury (Cold Vapor Mercury) | Instrument: A (023) | Reported: 02/20/09 07:53:42

Sequence: 090219AA **Date:** 02/19/09 15:48 **Analyst:** CGG **ICV:** _____ **CAL/CCV:** _____

#	Sample ID	Lot No.	Batch	Matrix	Raw	DF	Result	Units	%R	Analyzed Date	Comment	Q
103	K7D6FF	D9B180302-10	9050183	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 19:44		☐
104	K7D6HF	D9B180302-12	9050183	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 19:46		☐
105	K7D6LF	D9B180302-14	9050183	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 19:48		☐
106	K7EPKB	D9B190000	9050181		-0.00	1.0	-0.00	ppb		02/19/09 19:51		☐
107	K7EPKC	D9B190000 = 5.00	9050181		4.97	1.0	4.97	ppb	99.4%	02/19/09 19:53		☐
108	K7D5W	D9B180302-1	9050181	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 19:55		☐
109	K7D5WS	D9B180302-1 = 5.00	9050181	AQUEOUS	4.67	1.0	4.67	ppb		02/19/09 19:57		☐
110	CCV	= 5.00			5.13	1.0	5.13	ppb	102.6%	02/19/09 20:00		☐
111	CCB				-0.00	1.0	-0.00	ppb		02/19/09 20:02		☐
112	K7D5WD	D9B180302-1 = 5.00	9050181	AQUEOUS	4.66	1.0	4.66	ppb		02/19/09 20:04		☐
113	K7D52	D9B180302-3	9050181	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 20:07		☐
114	K7D56	D9B180302-5	9050181	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 20:09		☐
115	CCV	= 5.00			5.13	1.0	5.13	ppb	102.5%	02/19/09 20:14		☐
116	CCB				0.00	1.0	0.00	ppb		02/19/09 20:16		☐
117	K7EPPCF	D9B190000 = 5.00	9050182		4.63	1.0	4.63	ppb	92.5%	02/19/09 20:18	ok	☐
118	CCV	= 5.00			5.10	1.0	5.10	ppb	101.9%	02/19/09 20:21		☐
119	CCB				0.00	1.0	0.00	ppb		02/19/09 20:23		☐
120	K7D58	D9B180302-7	9050181	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 20:25		☐
121	K7D6E	D9B180302-9	9050181	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 20:28		☐
122	K7D6G	D9B180302-11	9050181	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 20:30		☐
123	K7D6K	D9B180302-13	9050181	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 20:32		☐
124	K7EPFB	D9B190000	9050177		-0.00	1.0	-0.00	ppb		02/19/09 20:35		☐
125	K7EPFC	D9B190000 = 5.00	9050177		5.06	1.0	5.06	ppb	101.2%	02/19/09 20:37		☐
126	CCV	= 5.00			5.16	1.0	5.16	ppb	103.2%	02/19/09 20:39		☐
127	CCB				-0.00	1.0	-0.00	ppb		02/19/09 20:42		☐
128	K7C9X	D9B180183-1	9050177	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 20:44		☐
129	K7C9XS	D9B180183-1 = 5.00	9050177	AQUEOUS	4.99	1.0	4.99	ppb		02/19/09 20:46		☐
130	K7C9XD	D9B180183-1 = 5.00	9050177	AQUEOUS	5.03	1.0	5.03	ppb		02/19/09 20:49		☐
131	K7C90	D9B180183-2	9050177	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 20:51		☐
132	K7C91	D9B180183-3	9050177	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 20:53		☐
133	K7C92	D9B180183-4	9050177	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 20:55		☐
134	K7C93	D9B180183-5	9050177	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 20:58		☐
135	K7C95	D9B180183-7	9050177	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 21:00		☐
136	K7DA9	D9B180189-1	9050177	AQUEOUS	0.08	1.0	0.08	ppb		02/19/09 21:02		☐

JCS 2/20/09

Denver

RUN SUMMARY

Method: CVHG - Mercury (Cold Vapor Mercury) | Instrument: A (023) | Reported: 02/20/09 07:53:42

Sequence: 090219AA **Date:** 02/19/09 15:48 **Analyst:** CGG **ICV:** _____ **CAL/CCV:** _____

#	Sample ID	Lot No.	Batch	Matrix	Raw	DF	Result	Units	%R	Analyzed Date	Comment	Q
137	CCV	= 5.00			5.03	1.0	5.03	ppb	100.7%	02/19/09 21:05		☐
138	CCB				0.00	1.0	0.00	ppb		02/19/09 21:07		☐
139	K7DQ6	D9B180260-1	9050177	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 21:09		☐
140	K7DRC	D9B180260-2	9050177	AQUEOUS	0.24	1.0	0.24	ppb		02/19/09 21:12		☐
141	K7DRW	D9B180264-1	9050177	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 21:14		☐
142	K7DRX	D9B180264-2	9050177	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 21:16		☐
143	K7DR0	D9B180264-3	9050177	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 21:19		☐
144	K7EPHB	D9B190000	9050178		-0.00	1.0	-0.00	ppb		02/19/09 21:21		☐
145	K7EPHC	D9B190000 = 5.00	9050178		5.07	1.0	5.07	ppb	101.4%	02/19/09 21:23		☐
146	K7DCL	D9B180192-1	9050178	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 21:26		☐
147	K7DCLS	D9B180192-1 = 5.00	9050178	AQUEOUS	4.99	1.0	4.99	ppb		02/19/09 21:28		☐
148	CCV	= 5.00			5.11	1.0	5.11	ppb	102.3%	02/19/09 21:30		☐
149	CCB				0.00	1.0	0.00	ppb		02/19/09 21:32		☐
150	K7DCLD	D9B180192-1 = 5.00	9050178	AQUEOUS	5.04	1.0	5.04	ppb		02/19/09 21:35		☐
151	K7DCV	D9B180192-2	9050178	AQUEOUS	0.01	~~1.0~~	0.01	ppb		02/19/09 21:37		☐
152	K7DCW	D9B180192-3	9050178	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 21:39		☐
153	K7DCX	D9B180192-4	9050178	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 21:42		☐
154	K7DC0	D9B180192-5	9050178	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 21:44		☐
155	K7DC1	D9B180192-6	9050178	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 21:46		☐
156	K7DC5	D9B180192-7	9050178	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 21:49		☐
157	CCV	= 5.00			5.11	1.0	5.11	ppb	102.1%	02/19/09 21:51		☐
158	CCB				0.00	1.0	0.00	ppb		02/19/09 21:53		☐
159	K7DC9	D9B180192-8	9050178	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 21:56		☐
160	K7DDD	D9B180192-9	9050178	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 21:58		☐
161	K7DDG	D9B180192-10	9050178	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 22:00		☐
162	K7DDL	D9B180192-11	9050178	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 22:03		☐
163	K7DDQ	D9B180192-12	9050178	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 22:05		☐
164	K7DLC	D9B180238-1	9050178	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 22:07		☐
165	K7DLK	D9B180238-3	9050178	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 22:10		☐
166	K7DLM	D9B180238-5	9050178	AQUEOUS	0.00	1.0	0.01	ppb		02/19/09 22:12		☐
167	K7DLR	D9B180238-7	9050178	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 22:14		☐
168	CCV	= 5.00			5.11	1.0	5.11	ppb	102.3%	02/19/09 22:17		☐
169	CCB				-0.00	1.0	-0.00	ppb		02/19/09 22:19		☐

JCS 2/20/09

CETAC Hg Analysis Report

Analyst: grisdalec
Worksheet file: C:\Program Files\QuickTrace\Worksheets\090219AA.wsz
Date Started: 2/19/2009 2:59:16 PM
Comment:

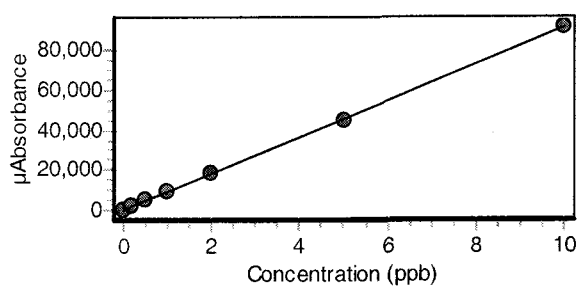
Results

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol.	ODF
Cal Blank	STD	02/19/09 03:48:02 pm	0.000	14	18.60		1.00	1.00	1.00
Std1	STD	02/19/09 03:50:20 pm	0.200	1787	0.12		1.00	1.00	1.00
Std2	STD	02/19/09 03:52:38 pm	0.500	4635	0.61		1.00	1.00	1.00
Std3	STD	02/19/09 03:54:57 pm	1.000	9314	0.41		1.00	1.00	1.00
Std4	STD	02/19/09 03:57:16 pm	2.000	18476	0.80		1.00	1.00	1.00
Std5	STD	02/19/09 03:59:36 pm	5.000	45013	0.78		1.00	1.00	1.00
Std6	STD	02/19/09 04:01:57 pm	10.000	91311	0.59		1.00	1.00	1.00

Calibration

Equation: A = 39.070 + 9105.741C
R2: 0.99993
SEE: 296.9909
Flags:

Checked 2/20/09



ICB	ICB	02/19/09 04:04:55 pm	-0.002	25	14.57		1.00	1.00	1.00
ICV	ICV	02/19/09 04:07:16 pm	7.087	64572	0.59		1.00	1.00	1.00
% Recovery 101.24									
RL	CRDL	02/19/09 04:09:34 pm	0.193	1799	0.58		1.00	1.00	1.00
% Recovery 96.66									

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
CCV	CCV	02/19/09 04:11:54 pm	5.110 ✓	46567	0.20		1.00	1.00
% Recovery 102.20 ✓							1.00	
CCB	CCB	02/19/09 04:14:11 pm	0.000 ✓	42	6.48		1.00	1.00
							1.00	
K7EPPB	UNK	02/19/09 04:16:28 pm	0.001 ✓	45	4.22		1.00	1.00
							1.00	
NA, Bad read see rerun below. CJ 2/20/09								
~~K7EPPC~~	~~UNK~~	~~02/19/09 04:18:46 pm~~	~~4.374~~	~~30865~~	~~1.13~~		~~1.00~~	1.00
							1.00	
K7EHT	UNK	02/19/09 04:21:03 pm	0.030	316	1.36		1.00	1.00
							1.00	
K7EHTS	UNK	02/19/09 04:23:21 pm	4.566 ✓	41619	2.55		1.00	1.00
							1.00	
K7EHTD	UNK	02/19/09 04:25:40 pm	4.549 ✓	41460	0.52		1.00	1.00
							1.00	
~~K7EHTS~~	~~UNK~~	~~02/19/09 04:27:57 pm~~	~~4.652~~	~~42398~~	~~2.56~~		~~1.00~~	1.00
							1.00	
NA, Confirms above CJ 2/20/09								
~~K7EHTD~~	~~UNK~~	~~02/19/09 04:30:16 pm~~	~~4.650~~	~~42381~~	~~1.77~~		~~1.00~~	1.00
							1.00	
K7EH5	UNK	02/19/09 04:32:34 pm	0.019	208	1.56		1.00	1.00
							1.00	
K7EH6	UNK	02/19/09 04:34:53 pm	0.010	133	2.27		1.00	1.00
							1.00	
CCV	CCV	02/19/09 04:37:13 pm	4.974 ✓	45335	0.38		1.00	1.00
% Recovery 99.49 ✓							1.00	
CCB	CCB	02/19/09 04:39:30 pm	0.000 ✓	43	5.83		1.00	1.00
							1.00	
K7EJJ	UNK	02/19/09 04:41:49 pm	0.007	102	0.79		1.00	1.00
							1.00	
K7EJ6	UNK	02/19/09 04:44:09 pm	0.007	104	3.75		1.00	1.00
							1.00	
K7EJ8	UNK	02/19/09 04:46:28 pm	0.012	149	4.73		1.00	1.00
							1.00	
K7EJ9	UNK	02/19/09 04:48:48 pm	0.007	99	1.47		1.00	1.00
							1.00	

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
K7EKA	UNK	02/19/09 04:51:08 pm	0.008	109	4.30		1.00	1.00 1.00
K7EKD	UNK	02/19/09 04:53:25 pm	0.012	147	1.74		1.00	1.00 1.00
K7EKE	UNK	02/19/09 04:55:42 pm	0.010	127	1.45		1.00	1.00 1.00
K7EKK	UNK	02/19/09 04:57:59 pm	0.005	87	1.20		1.00	1.00 1.00
K7EKJ	UNK	02/19/09 05:00:17 pm	0.004	76	3.46		1.00	1.00 1.00
CCV	CCV	02/19/09 05:02:37 pm	4.879 ✓	44465	0.80		1.00	1.00 1.00
% Recovery 97.58 ✓								
CCB	CCB	02/19/09 05:04:54 pm	-0.001 ✓	28	10.33		1.00	1.00 1.00
K7EKN	UNK	02/19/09 05:07:12 pm	0.009	118	7.20	s	1.00	1.00 1.00
K7EKM	UNK	02/19/09 05:09:30 pm	0.003	64	3.94		1.00	1.00 1.00
K7EKW	UNK	02/19/09 05:11:48 pm	0.008	108	2.37		1.00	1.00 1.00
K7EKX	UNK	02/19/09 05:14:07 pm	0.010	130	2.53		1.00	1.00 1.00
K7EN8B	UNK	02/19/09 05:16:26 pm	0.000 ✓	37	10.65		1.00	1.00 1.00
K7ENCC	UNK	02/19/09 05:18:45 pm	4.781 ✓	43578	0.86		1.00	1.00 1.00
K7EHT	UNK	02/19/09 05:21:05 pm	0.032	332	0.65		1.00	1.00 1.00
K7EHTS	UNK	02/19/09 05:23:25 pm	4.293 ✓	39128	0.81		1.00	1.00 1.00
K7EHTD	UNK	02/19/09 05:25:41 pm	4.292 ✓	39125	0.66		1.00	1.00 1.00
CCV	CCV	02/19/09 05:28:01 pm	4.931 ✓	44936	0.74		1.00	1.00 1.00
% Recovery 98.61 ✓								

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol.	ODF
CCB	CCB	02/19/09 05:30:18 pm	-0.001 ✓	33	10.11		1.00	1.00	1.00
~~K7EHTS~~	~~UNK~~	~~02/19/09 05:32:38 pm~~	4.254	38775	0.99		~~1.00~~	~~1.00~~	1.00
NA, Confirms above results CO 2/20/09									
~~K7EHTD~~	~~UNK~~	~~02/19/09 05:34:55 pm~~	4.294	39140	0.61		~~1.00~~	1.00	1.00
K7EH5	UNK	02/19/09 05:37:12 pm	0.039	390	0.72		1.00	1.00	1.00
K7EH6	UNK	02/19/09 05:39:29 pm	0.013	154	1.58		1.00	1.00	1.00
K7EJJ	UNK	02/19/09 05:41:47 pm	0.045	453	0.64		1.00	1.00	1.00
K7EJ6	UNK	02/19/09 05:44:05 pm	0.043	427	0.22		1.00	1.00	1.00
K7EJ8	UNK	02/19/09 05:46:23 pm	0.022	238	1.12		1.00	1.00	1.00
K7EJ9	UNK	02/19/09 05:48:41 pm	0.054	528	0.58		1.00	1.00	1.00
K7EKA	UNK	02/19/09 05:51:00 pm	0.051	502	0.31		1.00	1.00	1.00
CCV	CCV	02/19/09 05:53:20 pm	4.924 ✓	44873	0.82		1.00	1.00	1.00
% Recovery 98.47 ✓									
CCB	CCB	02/19/09 05:55:37 pm	-0.002 ✓	22	26.75		1.00	1.00	1.00
K7EKD	UNK	02/19/09 05:57:56 pm	0.033	341	0.84		1.00	1.00	1.00
K7EKK	UNK	02/19/09 06:00:15 pm	0.106	1003	0.82		1.00	1.00	1.00
K7EKJ	UNK	02/19/09 06:02:35 pm	0.027	287	0.63		1.00	1.00	1.00
K7EKN	UNK	02/19/09 06:04:55 pm	0.019	208	2.50		1.00	1.00	1.00
K7EKM	UNK	02/19/09 06:07:12 pm	0.000	40	8.88		1.00	1.00	1.00

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
K7EKW	UNK	02/19/09 06:09:29 pm	0.071	687	0.46		1.00	1.00 1.00
K7EKX	UNK	02/19/09 06:11:46 pm	0.034	345	1.00		1.00	1.00 1.00
K7EN3B	UNK	02/19/09 06:14:04 pm	-0.002	18	16.76		1.00	1.00 1.00
K7EN3C	UNK	02/19/09 06:16:22 pm	4.832	44036	0.35		1.00	1.00 1.00
CCV % Recovery 99.25	CCV	02/19/09 06:18:42 pm	4.963	45227	0.80		1.00	1.00 1.00
CCB	CCB	02/19/09 06:20:59 pm	-0.002	24	10.51		1.00	1.00 1.00
K7DXC	UNK	02/19/09 06:23:17 pm	0.158	1478	0.31		1.00	1.00 1.00
K7DXCS	UNK	02/19/09 06:25:35 pm	4.549	41463	0.42		1.00	1.00 1.00
K7DXCD	UNK	02/19/09 06:27:54 pm	4.908	44730	0.75		1.00	1.00 1.00
K7EF3	UNK	02/19/09 06:30:13 pm	-0.003	9	38.34		1.00	1.00 1.00
K7EGE	UNK	02/19/09 06:32:32 pm	0.093	886	0.78		1.00	1.00 1.00
K7EGM	UNK	02/19/09 06:34:52 pm	0.008	116	1.35		1.00	1.00 1.00
K7EGQ	UNK	02/19/09 06:37:12 pm	-0.003	9	23.09		1.00	1.00 1.00
K7EG3	UNK	02/19/09 06:39:30 pm	-0.001	30	14.88		1.00	1.00 1.00
K7EHD	UNK	02/19/09 06:41:47 pm	0.803	7348	0.54		1.00	1.00 1.00
CCV % Recovery 99.44	CCV	02/19/09 06:44:07 pm	4.972	45315	0.75		1.00	1.00 1.00
CCB	CCB	02/19/09 06:46:24 pm	0.000	38	11.14		1.00	1.00 1.00

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
K7D19B	UNK	02/19/09 06:48:42 pm	0.004	79	3.02		1.00	1.00 1.00
K7ENVC	UNK	02/19/09 06:50:59 pm	4.922	44856	0.42		1.00	1.00 1.00
K7A6X	UNK	02/19/09 06:53:17 pm	0.049	486	0.49		1.00	1.00 1.00
K7A6XP5	UNK	02/19/09 06:55:35 pm	0.014	168	2.55		1.00	1.00 1.00
K7A6XS	UNK	02/19/09 06:57:54 pm	4.780	43561	1.25		1.00	1.00 1.00
K7A6XD	UNK	02/19/09 07:00:12 pm	4.189	38184	0.32		1.00	1.00 1.00
K7D2VB	UNK	02/19/09 07:02:31 pm	0.005	81	4.30		1.00	1.00 1.00
K7ENRC	UNK	02/19/09 07:04:51 pm	4.976	45352	1.24		1.00	1.00 1.00
K7A62	UNK	02/19/09 07:07:10 pm	0.004	74	4.95		1.00	1.00 1.00
CCV % Recovery 101.94	CCV	02/19/09 07:09:30 pm	5.097	46452	0.61		1.00	1.00 1.00
CCB	CCB	02/19/09 07:11:47 pm	-0.001	33	8.51		1.00	1.00 1.00
K7A62P5	UNK	02/19/09 07:14:07 pm	0.005	88	5.26		1.00	1.00 1.00
K7A62S	UNK	02/19/09 07:16:25 pm	5.268	48011	1.22		1.00	1.00 1.00
K7A62D	UNK	02/19/09 07:18:43 pm	4.851	44208	0.89		1.00	1.00 1.00
K7EPWB	UNK	02/19/09 07:21:01 pm	-0.004	3	207.49		1.00	1.00 1.00
K7EPWC	UNK	02/19/09 07:23:19 pm	5.063	46142	0.66		1.00	1.00 1.00
K7D51	UNK	02/19/09 07:25:37 pm	-0.002	23	12.80		1.00	1.00 1.00

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol.
							ODF	
K7D51S	UNK	02/19/09 07:27:55 pm	5.210	47482	0.67		1.00	1.00
							1.00	
K7D51D	UNK	02/19/09 07:30:14 pm	5.058	46093	0.75		1.00	1.00
							1.00	
K7D55	UNK	02/19/09 07:32:32 pm	-0.003	14	25.57		1.00	1.00
							1.00	
CCV	CCV	02/19/09 07:34:52 pm	5.097	46449	0.80		1.00	1.00
% Recovery 101.94							1.00	
CCB	CCB	02/19/09 07:37:09 pm	0.000	40	13.91		1.00	1.00
							1.00	
K7D57	UNK	02/19/09 07:39:28 pm	0.000	39	14.47		1.00	1.00
							1.00	
K7D59	UNK	02/19/09 07:41:48 pm	-0.002	24	15.86		1.00	1.00
							1.00	
K7D6F	UNK	02/19/09 07:44:07 pm	-0.001	27	3.96		1.00	1.00
							1.00	
K7D6H	UNK	02/19/09 07:46:27 pm	-0.002	24	7.75		1.00	1.00
							1.00	
K7D6L	UNK	02/19/09 07:48:45 pm	0.002	58	4.69		1.00	1.00
							1.00	
K7EPKB	UNK	02/19/09 07:51:04 pm	-0.002	24	18.98		1.00	1.00
							1.00	
K7EPKC	UNK	02/19/09 07:53:22 pm	4.972	45313	0.50		1.00	1.00
							1.00	
K7D5W	UNK	02/19/09 07:55:40 pm	0.015	174	0.65		1.00	1.00
							1.00	
K7D5WS	UNK	02/19/09 07:57:58 pm	4.666	42523	0.80		1.00	1.00
							1.00	
CCV	CCV	02/19/09 08:00:18 pm	5.128	46731	1.13		1.00	1.00
% Recovery 102.56							1.00	
CCB	CCB	02/19/09 08:02:35 pm	-0.002	18	17.35		1.00	1.00
							1.00	
K7D5WD	UNK	02/19/09 08:04:54 pm	4.655	42423	0.43		1.00	1.00
							1.00	

NPDES - 3/20/09

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
K7D52	UNK	02/19/09 08:07:12 pm	0.008	108	2.06		1.00	1.00 1.00
K7D56	UNK	02/19/09 08:09:31 pm	0.011	138	1.50		1.00	1.00 1.00
CCV	CCV	02/19/09 08:14:22 pm	5.127	46728	0.66		1.00	1.00 1.00
% Recovery 102.55								
CCB	CCB	02/19/09 08:16:39 pm	0.000	37	5.75		1.00	1.00 1.00
K7EPPC RR 2/20/09	UNK	02/19/09 08:18:56 pm	4.626	42165	2.04		1.00	1.00 1.00
CCV	CCV	02/19/09 08:21:16 pm	5.097	46453	0.72		1.00	1.00 1.00
% Recovery 101.94								
CCB	CCB	02/19/09 08:23:33 pm	0.000	38	10.78		1.00	1.00 1.00
K7D58	UNK	02/19/09 08:25:52 pm	-0.002	17	6.63		1.00	1.00 1.00
K7D6E	UNK	02/19/09 08:28:11 pm	-0.001	33	9.16		1.00	1.00 1.00
K7D6G	UNK	02/19/09 08:30:31 pm	0.001	46	7.28		1.00	1.00 1.00
K7D6K	UNK	02/19/09 08:32:51 pm	0.001	45	6.70		1.00	1.00 1.00
K7EPFB	UNK	02/19/09 08:35:09 pm	-0.002	24	10.63		1.00	1.00 1.00
K7EPFC	UNK	02/19/09 08:37:28 pm	5.062	46132	0.91		1.00	1.00 1.00
CCV	CCV	02/19/09 08:39:48 pm	5.158	47006	0.65		1.00	1.00 1.00
% Recovery 103.16								
CCB	CCB	02/19/09 08:42:05 pm	-0.001	29	10.40		1.00	1.00 1.00
K7C9X	UNK	02/19/09 08:44:23 pm	-0.002	25	8.94		1.00	1.00 1.00
K7C9XS	UNK	02/19/09 08:46:42 pm	4.989	45471	0.90		1.00	1.00 1.00

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol.
							ODF	
K7C9XD	UNK	02/19/09 08:49:00 pm	5.027	45813	1.26		1.00	1.00
							1.00	
K7C90	UNK	02/19/09 08:51:19 pm	-0.003	9	59.84		1.00	1.00
							1.00	
K7C91	UNK	02/19/09 08:53:37 pm	0.000	41	8.43		1.00	1.00
							1.00	
K7C92	UNK	02/19/09 08:55:56 pm	0.000	36	3.61		1.00	1.00
							1.00	
K7C93	UNK	02/19/09 08:58:15 pm	-0.001	29	16.78		1.00	1.00
							1.00	
K7C95	UNK	02/19/09 09:00:34 pm	-0.001	30	5.00		1.00	1.00
							1.00	
K7DA9	UNK	02/19/09 09:02:54 pm	0.081	781	2.18		1.00	1.00
							1.00	
CCV	CCV	02/19/09 09:05:14 pm	5.035	45890	0.76		1.00	1.00
% Recovery 100.71							1.00	
CCB	CCB	02/19/09 09:07:31 pm	0.000	35	7.19		1.00	1.00
							1.00	
K7DQ6	UNK	02/19/09 09:09:51 pm	0.005	81	2.80		1.00	1.00
							1.00	
K7DRC	UNK	02/19/09 09:12:10 pm	0.242	2246	0.60		1.00	1.00
							1.00	
K7DRW	UNK	02/19/09 09:14:29 pm	-0.001	30	12.33		1.00	1.00
							1.00	
K7DRX	UNK	02/19/09 09:16:47 pm	-0.002	19	10.16		1.00	1.00
							1.00	
K7DR0	UNK	02/19/09 09:19:06 pm	0.000	39	8.64		1.00	1.00
							1.00	
K7EPHB	UNK	02/19/09 09:21:25 pm	-0.003	11	51.66		1.00	1.00
							1.00	
K7EPHC	UNK	02/19/09 09:23:44 pm	5.070	46207	0.75		1.00	1.00
							1.00	
K7DCL	UNK	02/19/09 09:26:03 pm	-0.003	16	32.38		1.00	1.00
							1.00	

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
K7DCLS	UNK	02/19/09 09:28:22 pm	4.995	45527	1.34		1.00	1.00 1.00
CCV	CCV	02/19/09 09:30:42 pm	5.113	46594	1.70		1.00	1.00 1.00
% Recovery 102.25								
CCB	CCB	02/19/09 09:32:59 pm	0.000	35	3.49		1.00	1.00 1.00
K7DCLD	UNK	02/19/09 09:35:18 pm	5.042	45954	0.83		1.00	1.00 1.00
K7DCV	UNK	02/19/09 09:37:37 pm	0.006	97	4.19		1.00	1.00 1.00
K7DCW	UNK	02/19/09 09:39:56 pm	0.005	89	2.05		1.00	1.00 1.00
K7DCX	UNK	02/19/09 09:42:16 pm	0.007	101	3.18		1.00	1.00 1.00
K7DC0	UNK	02/19/09 09:44:35 pm	0.006	96	5.53		1.00	1.00 1.00
K7DC1	UNK	02/19/09 09:46:54 pm	0.006	94	4.57		1.00	1.00 1.00
K7DC5	UNK	02/19/09 09:49:13 pm	0.000	39	2.72		1.00	1.00 1.00
CCV	CCV	02/19/09 09:51:33 pm	5.106	46532	0.90		1.00	1.00 1.00
% Recovery 102.12								
CCB	CCB	02/19/09 09:53:51 pm	0.000	38	6.18		1.00	1.00 1.00
K7DC9	UNK	02/19/09 09:56:10 pm	0.013	155	1.19		1.00	1.00 1.00
K7DDD	UNK	02/19/09 09:58:29 pm	0.006	93	2.63		1.00	1.00 1.00
K7DDG	UNK	02/19/09 10:00:48 pm	0.003	70	4.21		1.00	1.00 1.00
K7DDL	UNK	02/19/09 10:03:07 pm	0.002	58	4.97		1.00	1.00 1.00
K7DDQ	UNK	02/19/09 10:05:26 pm	0.003	63	2.08		1.00	1.00 1.00

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
K7DLC	UNK	02/19/09 10:07:45 pm	0.006	90	5.92		1.00	1.00
							1.00	
K7DLK	UNK	02/19/09 10:10:04 pm	0.003	67	3.64		1.00	1.00
							1.00	
K7DLM	UNK	02/19/09 10:12:24 pm	0.005	86	1.69		1.00	1.00
							1.00	
K7DLR	UNK	02/19/09 10:14:44 pm	0.003	65	3.33		1.00	1.00
							1.00	
CCV	CCV	02/19/09 10:17:03 pm	5.113 ✓	46599	0.95		1.00	1.00
% Recovery 102.26 ✓							1.00	
CCB	CCB	02/19/09 10:19:20 pm	-0.002 ✓	24	15.52		1.00	1.00
							1.00	

Analysis Parameters

Instrument

Conditions

Gas flow (mL/min)	Sample Uptake (s)	Rinse (s)	Read delay (s)	Replicates (#)	Replicate time (s)	Pump speed (%)	Wavelength (nm)
100	40.00	90.00	50.00	4	1.50	50	253.65

Instrumental Zero

Zero before first sample: No

Zero periodically: Yes

Before each calibration.

Baseline Correction

#1 Start time (s)	#1 End time (s)	#2 Start time (s)	#2 End time (s)
25.00	29.00		

Standby Mode

Enabled: Yes

Standby Options: pump slow

Autodilution

Enabled: Yes

Condition: Saturate

Tube # range: 4:1 - 4:60

If no autodilution tubes remaining continue undiluted

Calibration

Settings

Algorithm	Through blank	Weighted fit	Cal. Type	Racalibration rate	Reslope rate	Reslope standard
Linear	No	No	Normal	0	0	N/A

Limits

Calibration slope		Reslope		Coeff. of
Lower (%)	Upper (%)	Lower (%)	Upper (%)	Determination
20	150	75	125	0.99500

Error action: Flag and continue

QC

GLP Override: Yes

QC Tests

CCB

Concentration (ppb)
0.2000

Failure flag: Q

Error action for manually inserted QC: Stop analysis

ICB

Concentration (ppb)
0.2000

Failure flag: Z

Error action for manually inserted QC: Stop analysis

CCV

Concentration (ppb)	Low Limit %	High Limit %
5.0000	80.0000	120.0000

Failure flag: Q

Error action for manually inserted QC: Stop analysis

ICV

Concentration (ppb)	Low Limit %	High Limit %
7.0000	90.0000	110.0000

Failure flag: Q

Error action for manually inserted QC: Stop analysis

CRDL

Concentration (ppb)	Low Limit %	High Limit %
0.2000	70.0000	130.0000

Failure flag: Y

Error action for manually inserted QC: Stop analysis

Vista
Analytical Laboratory

March 07, 2009

Vista Project I.D.: 31442

Mr. Joseph Doak
Test America-Irvine, CA
17461 Derian Avenue
Suite 100
Irvine, CA 92614

Dear Mr. Doak,

Enclosed are the results for the one aqueous sample received at Vista Analytical Laboratory on February 18, 2009 under your Project Name "ISB1803". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Vista's current certifications, and copies of the raw data (if requested).

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com. Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha M. Maier
Laboratory Director

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAC for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista Analytical Laboratory.

Section I: Sample Inventory Report

Date Received: **2/18/2009**

Vista Lab. ID	Client Sample ID
31442-001	ISB1803-01

SECTION II

Method Blank **EPA Method 1613**

Matrix: Aqueous QC Batch No.: 1907 Lab Sample: 0-MB001

Sample Size: 1.00 L Date Extracted: 21-Feb-09 Date Analyzed DB-5: 24-Feb-09 Date Analyzed DB-225: NA

Analyte	Conc. (ug/L)	DL [a]	EMPC [b]	Qualifiers
2,3,7,8-TCDD	ND	0.000000484		
1,2,3,7,8-PeCDD	ND	0.000000938		
1,2,3,4,7,8-HxCDD	ND	0.00000107		
1,2,3,6,7,8-HxCDD	ND	0.00000110		
1,2,3,7,8,9-HxCDD	ND	0.00000105		
1,2,3,4,6,7,8-HpCDD	ND	0.00000347		
OCDD	ND	0.00000193		
2,3,7,8-TCDF	ND	0.000000369		
1,2,3,7,8-PeCDF	ND	0.000000467		
2,3,4,7,8-PeCDF	ND	0.000000467		
1,2,3,4,7,8-HxCDF	ND	0.000000652		
1,2,3,6,7,8-HxCDF	ND	0.000000635		
2,3,4,6,7,8-HxCDF	ND	0.000000697		
1,2,3,7,8,9-HxCDF	ND	0.00000100		
1,2,3,4,6,7,8-HpCDF	ND	0.00000223		
1,2,3,4,7,8,9-HpCDF	ND	0.00000241		
OCDF	ND	0.00000157		

	Labeled Standard	%R	LCL-UCL [d]	Qualifiers
IS	13C-2,3,7,8-TCDD	84.7	25 - 164	
	13C-1,2,3,7,8-PeCDD	76.5	25 - 181	
	13C-1,2,3,4,7,8-HxCDD	82.7	32 - 141	
	13C-1,2,3,6,7,8-HxCDD	79.3	28 - 130	
	13C-1,2,3,4,6,7,8-HpCDD	83.7	23 - 140	
	13C-OCDD	74.0	17 - 157	
	13C-2,3,7,8-TCDF	93.7	24 - 169	
	13C-1,2,3,7,8-PeCDF	80.7	24 - 185	
	13C-2,3,4,7,8-PeCDF	79.8	21 - 178	
	13C-1,2,3,4,7,8-HxCDF	83.9	26 - 152	
	13C-1,2,3,6,7,8-HxCDF	80.2	26 - 123	
	13C-2,3,4,6,7,8-HxCDF	83.8	28 - 136	
	13C-1,2,3,7,8,9-HxCDF	81.6	29 - 147	
	13C-1,2,3,4,6,7,8-HpCDF	80.1	28 - 143	
	13C-1,2,3,4,7,8,9-HpCDF	85.3	26 - 138	
	13C-OCDF	69.3	17 - 157	
CRS	37Cl-2,3,7,8-TCDD	90.8	35 - 197	

Totals		
Total TCDD	ND	0.000000484
Total PeCDD	ND	0.000000938
Total HxCDD	ND	0.00000107
Total HpCDD	ND	0.00000347
Total TCDF	ND	0.000000369
Total PeCDF	ND	0.000000467
Total HxCDF	ND	0.000000746
Total HpCDF	ND	0.00000232

Footnotes

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

Analyst: JMH Approved By: Martha M. Maier 07-Mar-2009 08:24

OPR Results **EPA Method 1613**

Matrix:	Aqueous	QC Batch No.:	1907	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	21-Feb-09	Date Analyzed DB-5:	24-Feb-09	Date Analyzed DB-225:	NA

Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits		Labeled Standard	%R	LCL-UCL	Qualifier
2,3,7,8-TCDD	10.0	10.3	6.7 - 15.8	IS	13C-2,3,7,8-TCDD	86.0	25 - 164	
1,2,3,7,8-PeCDD	50.0	52.1	35 - 71		13C-1,2,3,7,8-PeCDD	78.7	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	51.0	35 - 82		13C-1,2,3,4,7,8-HxCDD	84.9	32 - 141	
1,2,3,6,7,8-HxCDD	50.0	50.0	38 - 67		13C-1,2,3,6,7,8-HxCDD	81.1	28 - 130	
1,2,3,7,8,9-HxCDD	50.0	49.9	32 - 81		13C-1,2,3,4,6,7,8-HpCDD	79.5	23 - 140	
1,2,3,4,6,7,8-HpCDD	50.0	50.9	35 - 70		13C-OCDD	71.0	17 - 157	
OCDD	100	102	78 - 144		13C-2,3,7,8-TCDF	90.8	24 - 169	
2,3,7,8-TCDF	10.0	10.2	7.5 - 15.8		13C-1,2,3,7,8-PeCDF	83.2	24 - 185	
1,2,3,7,8-PeCDF	50.0	50.9	40 - 67		13C-2,3,4,7,8-PeCDF	81.4	21 - 178	
2,3,4,7,8-PeCDF	50.0	50.9	34 - 80		13C-1,2,3,4,7,8-HxCDF	84.8	26 - 152	
1,2,3,4,7,8-HxCDF	50.0	50.9	36 - 67		13C-1,2,3,6,7,8-HxCDF	81.8	26 - 123	
1,2,3,6,7,8-HxCDF	50.0	51.5	42 - 65		13C-2,3,4,6,7,8-HxCDF	84.2	28 - 136	
2,3,4,6,7,8-HxCDF	50.0	50.1	35 - 78		13C-1,2,3,7,8,9-HxCDF	81.1	29 - 147	
1,2,3,7,8,9-HxCDF	50.0	51.3	39 - 65		13C-1,2,3,4,6,7,8-HpCDF	76.4	28 - 143	
1,2,3,4,6,7,8-HpCDF	50.0	51.0	41 - 61		13C-1,2,3,4,7,8,9-HpCDF	81.1	26 - 138	
1,2,3,4,7,8,9-HpCDF	50.0	50.6	39 - 69		13C-OCDF	67.5	17 - 157	
OCDF	100	105	63 - 170	CRS	37Cl-2,3,7,8-TCDD	90.9	35 - 197	

Analyst: JMH

Approved By: Martha M. Maier 07-Mar-2009 08:24

Sample ID: **ISB1803-01** **EPA Method 1613**

Client Data		Sample Data		Laboratory Data			
Name:	Test America-Irvine, CA	Matrix:	Aqueous	Lab Sample:	31442-001	Date Received:	18-Feb-09
Project:	ISB1803	Sample Size:	1.03 L	QC Batch No.:	1907	Date Extracted:	21-Feb-09
Date Collected:	16-Feb-09			Date Analyzed DB-5:	24-Feb-09	Date Analyzed DB-225:	NA
Time Collected:	1310						

Analyte	Conc. (ug/L)	DL [a]	EMPC [b]	Qualifiers
2,3,7,8-TCDD	ND	0.000000514		
1,2,3,7,8-PeCDD	ND	0.000000986		
1,2,3,4,7,8-HxCDD	ND	0.00000156		
1,2,3,6,7,8-HxCDD	ND	0.00000159		
1,2,3,7,8,9-HxCDD	ND	0.00000152		
1,2,3,4,6,7,8-HpCDD	0.0000401			
OCDD	0.000365			
2,3,7,8-TCDF	ND	0.000000392		
1,2,3,7,8-PeCDF	ND	0.000000602		
2,3,4,7,8-PeCDF	ND	0.000000593		
1,2,3,4,7,8-HxCDF	ND		0.00000119	
1,2,3,6,7,8-HxCDF	ND		0.000000924	
2,3,4,6,7,8-HxCDF	0.00000123			J
1,2,3,7,8,9-HxCDF	ND	0.00000105		
1,2,3,4,6,7,8-HpCDF	0.0000301			
1,2,3,4,7,8,9-HpCDF	ND	0.00000156		
OCDF	0.0000605			

	Labeled Standard	%R	LCL-UCL [d]	Qualifiers
IS	13C-2,3,7,8-TCDD	79.5	25 - 164	
	13C-1,2,3,7,8-PeCDD	71.7	25 - 181	
	13C-1,2,3,4,7,8-HxCDD	77.8	32 - 141	
	13C-1,2,3,6,7,8-HxCDD	72.3	28 - 130	
	13C-1,2,3,4,6,7,8-HpCDD	69.1	23 - 140	
	13C-OCDD	55.1	17 - 157	
	13C-2,3,7,8-TCDF	102	24 - 169	
	13C-1,2,3,7,8-PeCDF	74.5	24 - 185	
	13C-2,3,4,7,8-PeCDF	74.0	21 - 178	
	13C-1,2,3,4,7,8-HxCDF	78.8	26 - 152	
	13C-1,2,3,6,7,8-HxCDF	72.4	26 - 123	
	13C-2,3,4,6,7,8-HxCDF	84.6	28 - 136	
	13C-1,2,3,7,8,9-HxCDF	72.4	29 - 147	
	13C-1,2,3,4,6,7,8-HpCDF	67.8	28 - 143	
	13C-1,2,3,4,7,8,9-HpCDF	75.8	26 - 138	
	13C-OCDF	55.3	17 - 157	
CRS	37Cl-2,3,7,8-TCDD	89.4	35 - 197	

Totals

Total TCDD	ND	0.000000514		
Total PeCDD	ND	0.000000986		
Total HxCDD	0.00000620			
Total HpCDD	0.0000850			
Total TCDF	ND	0.000000392		
Total PeCDF	ND		0.00000138	
Total HxCDF	0.0000137			
Total HpCDF	0.0000507			

Footnotes

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

Analyst: JMH

Approved By: Martha M. Maier 07-Mar-2009 08:24

APPENDIX

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank.**
D	**Dilution**
E	**The amount detected is above the High Calibration Limit.**
P	**The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.**
H	**The signal-to-noise ratio is greater than 10:1.**
I	**Chemical Interference**
J	**The amount detected is below the Low Calibration Limit.**
*****	**See Cover Letter**
Conc.	**Concentration**
DL	**Sample-specific estimated detection limit**
MDL	**The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.**
EMPC	**Estimated Maximum Possible Concentration**
NA	**Not applicable**
RL	**Reporting Limit – concentrations that correspond to low calibration point**
ND	**Not Detected**
TEQ	**Toxic Equivalency**

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-2008
State of Arizona	AZ0639
State of Arkansas, DEQ	08-043-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	N/A
State of Connecticut	PH-0182
State of Florida, DEP	E87777
State of Indiana Department of Health	C-CA-02
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA08000
State of Louisiana, DEQ	01977
State of Maine	2008024
State of Michigan	9932
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	NFESC413
State of Nevada	CA004132007A
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-006
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	TN02996
State of Texas	T104704189-08-TX
U.S. Army Corps of Engineers	N/A
State of Utah	CA16400
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

SUBCONTRACT ORDER

TestAmerica Irvine

ISB1803

31442

SENDING LABORATORY:	RECEIVING LABORATORY:
TestAmerica Irvine	Vista Analytical Laboratory- SUB
17461 Derian Avenue. Suite 100	1104 Windfield Way
Irvine, CA 92614	El Dorado Hills, CA 95762
Phone: (949) 261-1022	Phone :(916) 673-1520
Fax: (949) 260-3297	Fax: (916) 673-0106
Project Manager: Joseph Doak	Project Location: CA - CALIFORNIA
	Receipt Temperature: 3.9 °C Ice: (Y) / N

Analysis	Units	Due	Expires	Comments
Sample ID: ISB1803-01	**Water**		Sampled: **02/16/09 13:10**	
1613-Dioxin-HR-Alta	ug/l	02/25/09	02/23/09 13:10	J flags,17 congeners,no TEQ,ug/L,sub=Vista
Level 4 + EDD-OUT	N/A	02/25/09	03/16/09 13:10	Excel EDD email to pm,Include Std logs for Lvl IV

Containers Supplied:

1 L Amber (AC) 1 L Amber (AD)

Released By	Date/Time	Received By	Date/Time
[signature]	2/17/09 17:00	FedEx	2/17/09 17:00
Released By	Date/Time	Received By [signature]	Date/Time 2/18/09 [illegible]

SAMPLE LOG-IN CHECKLIST

Vista Analytical Laboratory

Vista Project #: 31442 TAT unspecified

Samples Arrival:	**Date/Time** 2/18/09 0950	**Initials:** C✓	**Location:** WR-2 **Shelf/Rack:** N/A
Logged In:	**Date/Time** 2/18/09 1500	**Initials:** C✓	**Location:** WR-2 **Shelf/Rack:** C-4

Delivered By:	(FedEx)	UPS	Cal	DHL	Hand Delivered	Other

Preservation:	(Ice)	Blue Ice	Dry Ice	None

Temp °C 3.9°	**Time:** 0959	**Thermometer ID:** IR-1

	YES	NO	NA
Adequate Sample Volume Received? (A & B bottles)	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill Trk # 7963 5046 4802	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

$Na_2S_2O_3$ Preservation Documented?	COC	Sample Container	(None)

Shipping Container	Vista	(Client)	Retain	(Return)	Dispose

Comments:

Sample Log-in 3/2005 rmb **NPDES - 3226**